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William Randolph  
Chief engineer

Sanitary District

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1894.

PROCEEDINGS

OF THE

BOARD OF TRUSTEES

OF THE

SANITARY DISTRICT OF CHICAGO

From January 1, 1894, to December 31, 1894.

---

RIALTO BUILDING.

---

CHICAGO:

JOHN F. HIGGINS, PRINTER, 196-8 S. CLARK STREET.

1895.







- MEMBERS OF -

BOARD OF TRUSTEES  
OF THE  
SANITARY DISTRICT OF CHICAGO.

For the Years 1894 and 1895.

---

BOARD OF TRUSTEES.

JOHN J. ALTPETER,	-	-	-	-	-	758 S. Halsted Street.
WILLIAM BOLDENWECK,	-	-	-	-	-	73 Dearborn Street.
LYMAN E. COOLEY,	-	-	-	-	-	526 Rialto Building.
BERNARD A. ECKHART,	-	-	-	-	-	65 N. Canal Street.
ARNOLD P. GILMORE,	-	-	-	-	-	Venetian Building.
THOMAS KELLY,	-	-	-	-	-	3622 S. Western Avenue.
RICHARD PRENDERGAST,	-	-	-	-	-	805 Rookery Building.
WILLIAM H. RUSSELL,	-	-	-	-	-	3126 Calumet Avenue.
FRANK WENTER.	-	-	-	-	-	115 W. Fourteenth Street.

---

OFFICERS.

FRANK WENTER,	-	-	-	-	-	-	President.
THOS. F. JUDGE,	-	-	-	-	-	-	Clerk.
MELVILLE E. STONE,	-	-	-	-	-	-	Treasurer.
ISHAM RANDOLPH,	-	-	-	-	-	-	Chief Engineer.
*ORRIN N. CARTER,	}	-	-	-	-	-	Attorney.
†GEORGE E. DAWSON,		-	-	-	-	-	

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OFFICES OF THE DISTRICT, RIALTO BUILDING.

122298

\* Resigned as Attorney August 15, 1894.

† Elected Attorney August 15, 1894.





# COMMITTEES FOR 1894 AND 1895.

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## *COMMITTEE ON JUDICIARY.*

THOMAS KELLY, Chairman.

WILLIAM BOLDENWECK,

JOHN ALTPETER.

## *COMMITTEE ON FINANCE.*

BERNARD A. ECKHART, Chairman.

WILLIAM H. RUSSELL,

THOMAS KELLY,

## *COMMITTEE ON RULES.*

THE PRESIDENT OF THE BOARD, Chairman.

WILLIAM H. RUSSELL,

BERNARD A. ECKHART.

## *COMMITTEE ON ENGINEERING.*

LYMAN E. COOLEY, Chairman.

THOMAS KELLY,

WILLIAM BOLDENWECK,

JOHN J. ALTPETER,

WILLIAM H. RUSSELL.

## *COMMITTEE ON HEALTH AND PUBLIC ORDER.*

ARNOLD P. GILMORE, Chairman.

JOHN J. ALTPETER,

RICHARD PRENDERGAST.

## *COMMITTEE ON FEDERAL RELATIONS.*

WILLIAM BOLDENWECK, Chairman.

LYMAN E. COOLEY,

JOHN J. ALTPETER,

RICHARD PRENDERGAST,

ARNOLD P. GILMORE.

## *COMMITTEE ON LABOR.*

JOHN J. ALTPETER, Chairman.

THOMAS KELLY,

BERNARD A. ECKHART.


---

THOMAS F. JUDGE, *Clerk of District.*

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REGULAR MEETINGS—The Board of Trustees meet every Wednesday at 1:30 o'clock P. M. All Committees subject to call of Chairman.





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## SANITARY DISTRICT OF CHICAGO.

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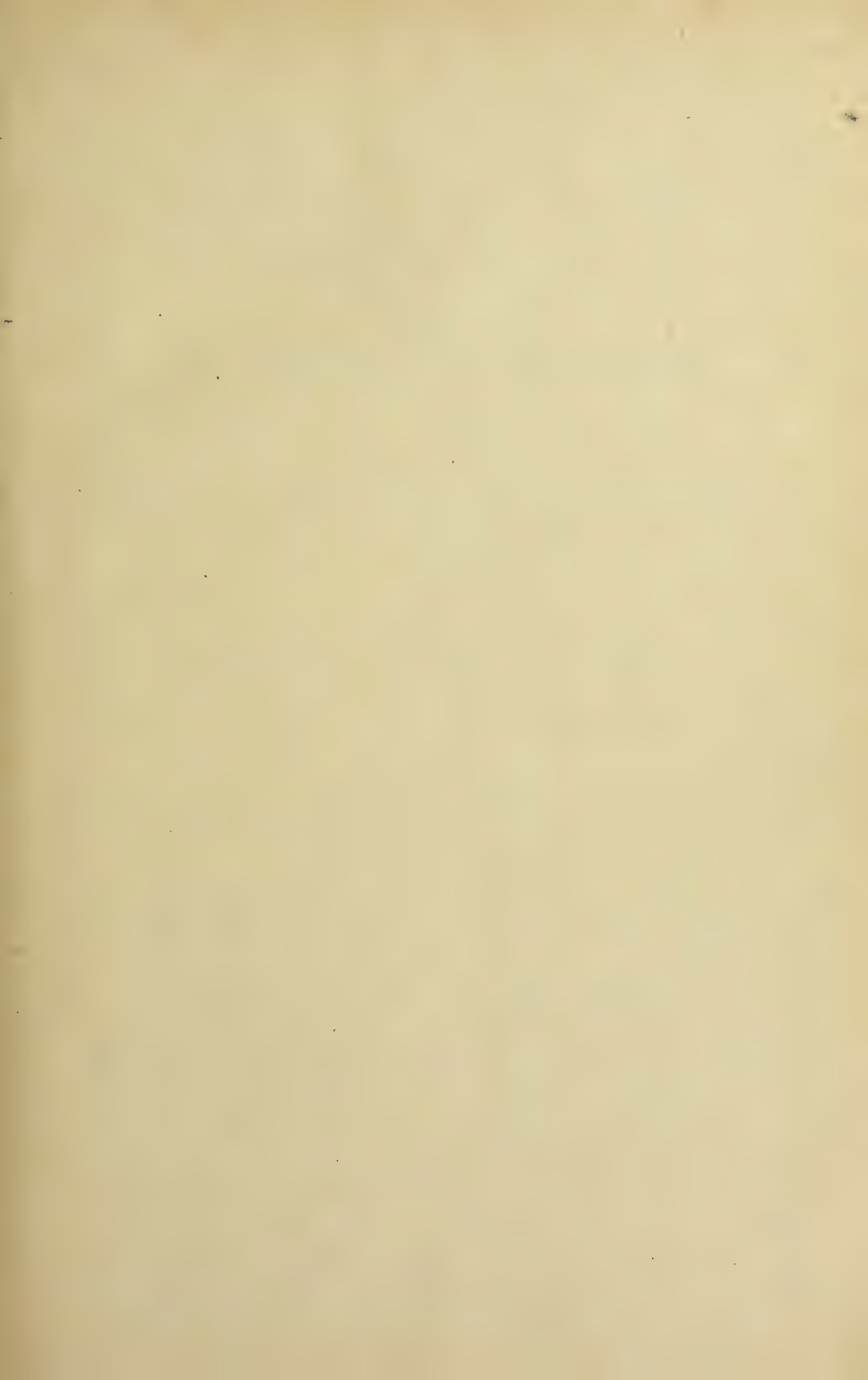
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# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

---

JANUARY 3, 1894.

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#### OFFICIAL RECORD.

(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)

#### REGULAR MEETING.

The two hundred and third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, January 3, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6) members, were present.

#### MINUTES.

The minutes of the adjourned meeting held December 23, 1893, and of the regular meeting held December 27, 1893, were approved as printed, on motion of Mr. Eckhart, seconded by Mr. Russell.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (December, 1893).....	\$ 3,226 66
Eng. Dept., Div. No. 1, (half month, ending Dec. 31, 1893).....	2,688 20
Eng. Dept., Div. No. 1, tow-path, (half month ending Dec. 31, 1893).....	62 50
Eng. Dept., Div. No. 2, (half month, ending Dec. 31, 1893).....	766 24
Eng. Dept., Div. No. 3, (half month, ending Dec. 31, 1893).....	829 25
Eng. Dept., Div. No. 4, (half month, ending Dec. 31, 1893).....	107 50
Eng. Dept., Div. No. 4, Time-keepers, (half month, ending Dec. 31, 1893).....	35 00



Eng. Dept., discharged men's roll, (December, 1893).....	32 66	
		\$ 7,748 01
Clerical Dept., Clerk's roll, (Dec., 1893).....	\$ 583 34	
Clerical Dept., office roll, (half month, ending Dec. 31, 1893).....	137 50	
		720 84
Treasury Dept., Treasurer's roll, (Dec., 1893).....		166 67
Law Dept., Attorney's roll, (Dec., 1893).....	\$ 1,331 67	
Law Dept., Joliet roll, (Dec., 1893).....	333 34	
Law Dept., office roll, (half month, ending Dec. 31, 1893).....	102 50	
		1,767 51
General Account, Sanitary Inspector's roll, (Dec., 1893).....	\$ 200 00	
General Account, Trustees' roll, (Dec., 1893).....	2,325 34	
		2,553 34
Police Dept., Marshal's roll, (Dec., 1893).....	\$ 250 00	
Police Dept., field roll, (half month, ending Dec. 31, 1893).....	1,374 18	
		1,624 18
Total.....		\$14,560 55

## ENGINEERING DEPARTMENT.

*Construction Account—*

McArthur Bros. (Sec. 2, Jan. 1, '94).....	\$ 8,308 12	
McArthur Bros. (Sec. 3, final payment).....	4,012 20	
Gilman & Co. (Sec. 3, Dec. 16, '93).....	3,219 30	
Gilman & Co. (Sec. 3, Jan. 1, '94).....	6,129 90	
McArthur Bros. (Sec. 4, Jan. 1, '94).....	9,029 48	
Agnew & Co. (Sec. 6, Jan. 1, '94).....	1,181 25	
Agnew & Co. (Sec. 7, Jan. 1, '94).....	1,808 19	
Agnew & Co. (Sec. 8, Jan. 1, '94).....	1,962 19	
Agnew & Co. (Sec. 9, Jan. 1, '94).....	526 14	
E. D. Smith & Co. (Sec. 10, Jan. 1, '94).....	13,103 13	
E. D. Smith & Co. (Sec. 11, Jan. 1, '94).....	423 10	
John Lehman, (Sec. 1, special work, River Diversion, Dec. 28, '93).....	2,768 22	
McArthur Bros. Co. (Sec. 2, River Diversion, Dec. 16, '93)....	397 98	
McArthur Bros. Co. (Sec. 4, River Diversion, Dec. 16, '93)....	3,608 69	
McArthur Bros. Co. (Sec. 5, River Diversion, Dec. 16, '93)....	116 61	

E. D. Smith & Co. (Sec. 8, Stephens street and Santa Fe bridges, Dec. 16, '93).....	\$ 3,123 49	
The Heidenreich Co., (Sec. A, trestle for levee, Dec. 28, '93)....	1,557 38	
McArthur Bros. Co. (Sec. F, work in vicinity of spillway, Dec. 16, '93).....	4,836 46	
		\$ 66,161 83

## LAW DEPARTMENT.

John P. Wilson, (legal services, Oct. 1 to Dec. 31, '93).....	\$ 1,250 00	
Joseph Donnersberger, (expert, right of way, Dec. '93).....	300 00	
J. Underwood & Co. (carbon paper).....	4 00	
Orrin N. Carter, (postage stamps).....	10 00	
Warner's Towel Supply, (toweling to Dec. 31, '93).....	2 70	
Orrin N. Carter, (expense).....	43 80	
		\$ 1,610 50

## GENERAL ACCOUNT.

The Chicago Deposit Vault Co. (rent, Oct. to Dec. 31, '93).....	\$ 2,110 00	
The Chicago Deposit Vault Co., (janitor service, December, 1893).....	80 00	
John F. Higgins, (printing proceedings, Dec., 1893)....	145 98	
Sharp & Smith, (vaccine points).....	45 00	
Orrin N. Carter, (damages for personal injuries to sundry persons, River Diversion work).....	154 00	
		\$ 2,534 98
Grand total.....		\$34,867 86

Mr. Boldenweck, seconded by Mr. Russell, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisition:

No. 379, Engineering Department,  
(stationery)..... \$85 00

Mr. Cooley, seconded by Mr. Boldenweck, moved that Requisition No. 379, for the Engineering Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 379, for the Engineering Department, as read and shown above, allowed.

#### WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District, for the week ending December 30, 1893.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“CHICAGO, Jan. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending December 30, 1893, as the same have been reported to me:

Engineering Department.....	114
Clerical Department.....	4
Treasury Department.....	1
Law Department....	8
Police Department.....	36

Total employes..... 163

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
*Clerk.*”

#### COMPLETION AND DELIVERY OF ISSUE OF \$3,000,000 OF BONDS.

The Clerk presented a report, accompanied by a receipt from the Treasurer of the District, with reference to the completion and delivery to the Treasurer of the District of the issue of \$3,000,000 of signed and sealed five per cent bonds of the District, issued under ordinance of November 8, 1893.

The report was read, and by unani-

mous consent, with accompanying receipt, was ordered printed and placed on file.

The following is

#### THE REPORT, WITH ACCOMPANYING RECEIPT:

“CHICAGO, Jan 3, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to report that I have delivered to Mr. Melville E. Stone, Treasurer of the District, as shown by the receipt transmitted herewith, the entire issue of \$3,000,000 of five per cent bonds of the District, signed by the President and Clerk and sealed with the seal of the District, complete and ready for delivery to the purchasers, Messrs. N. W. Harris & Co., the same being the bonds issued under ordinance of November 8, 1893, (page 1549 of the Proceedings).

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
*Clerk.*”

“CHICAGO, January 2, 1894.

*Received of Thos. F. Judge, Clerk of the Sanitary District of Chicago, three thousand (\$3000) signed and sealed five per cent (5 per cent) bonds, for the sum of one thousand (\$1000) dollars each, of the Sanitary District of Chicago, numbered from No. 2001 to No. 5000 consecutively, with interest coupons attached, and maturing as follows:*

Nos. 2001 to 2150, January 1, 1895.
Nos. 2151 to 2300, January 1, 1896.
Nos. 2301 to 2450, January 1, 1897.
Nos. 2451 to 2600, January 1, 1898.
Nos. 2601 to 2750, January 1, 1899.
Nos. 2751 to 2900, January 1, 1900.
Nos. 2901 to 3050, January 1, 1901.
Nos. 3051 to 3200, January 1, 1902.
Nos. 3201 to 3350, January 1, 1903.
Nos. 3351 to 3500, January 1, 1904.
Nos. 3501 to 3650, January 1, 1905.
Nos. 3651 to 3800, January 1, 1906.
Nos. 3801 to 3950, January 1, 1907.
Nos. 3951 to 4100, January 1, 1908.
Nos. 4101 to 4250, January 1, 1909.
Nos. 4251 to 4400, January 1, 1910.
Nos. 4401 to 4550, January 1, 1911.
Nos. 4551 to 4700, January 1, 1912.
Nos. 4701 to 4850, January 1, 1913.
Nos. 4851 to 5000, January 1, 1914.

The same being the entire issue of three million (\$3,000,000) dollars of Dis-



trict bonds, issued under ordinance of November 8, 1893, and being completed and ready for delivery.

(Signed) MELVILLE E. STONE,  
*Treasurer of the Sanitary District of Chicago.*

By W. G. STANFORD,  
*Asst. Treasurer."*

(\$3,000,000.00 in bonds )

# MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of December, 1893.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT :

"Balance on hand at date of last report.....	\$ 582,460.34
Received from General Account, Rent.....	\$ 120 00
Received from County Treasurer, Tax Account.....	78,750 46
Received from General Account, Rent.....	150 00
Received from Land Account, Ice Houses sold.....	500 00
Received from Engineering Department, Maps Sold.....	83 35
Received from Ft. Dearborn National Bank, interest for December.....	149 98
Received from Metropolitan National Bank, interest for December.....	121 43
Received from National Bank of Illinois, interest for December....	155 15
Received from American Trust and Savings Bank, interest for December.....	44 57
Received from Globe National Bank, interest for December....	232 95
Received from Chicago National Bank, interest for December....	112 92
	<hr/> \$ 80,420 81
Total cash received for month.....	\$ 662,881 15
Total cash disbursed during month as per annexed schedules, viz:	
Clerical Department....	\$ 879 35
Treasury Department..	182 82

Engineering Departm't. \$ 14,403 81	
Engineering—Construction—Department....	276,924 88
Law Department.....	2,539 82
Law Department—Land Account.....	132,670 00
General Account.....	4,006 48
Police Department.....	3,853 42
	<hr/> \$435,550 58
Balance this date, in banks as per schedule endorsed hereon .....	\$227,330 57

(Signed) MELVILLE E. STONE,  
*Treasurer.*  
Chicago, January 3, 1894."

## SCHEDULE :

Fort Dearborn National Bank.....	\$ 56,122 08
National Bank of Illinois.....	56,962 61
Chicago National Bank.....	30,638 08
Metropolitan National Bank.....	33,859 95
American Trust and Savings Bank.....	21,003 79
Globe National Bank.....	28,744 06
Total.....	<hr/> \$227,330 57

## PURCHASE OF "JANOS," "HAUZER," "KRULIS," "VELCEK," "VESELA," AND "KLANK" LANDS.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from Frank Janos, Frank Hauzer, Frank Krulis, Anton Velcek, Anna Vese'a and Johana Klank, of certain right of way lands in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands, on the vouchers of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay Frank Janos, Frank Hauzer, Frank Krulis, Anton Velcek, Anna Vesela and Johana Klank, on the vouchers of the Attorney, for the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay Frank Janos, Frank Hauzer, Frank Krulis, Anton Velcek,

Anna Vesela and Johana Klank, on the vouchers of the Attorney, for the said right of way lands, as provided in the report.

The following is

THE REPORT:

"CHICAGO, Jan. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with Frank Janos for the purchase from him for the corporate purposes of this District of the land hereinafter described for the sum of five hundred (\$500.00) dollars;

With Frank Hauzer for the purchase from him for the corporate purposes of this District of the land hereinafter described for the sum of five hundred (\$500.00) dollars;

With Frank Krulis for the purchase from him for the corporate purposes of this District of the land hereinafter described together with a one-story frame cottage, for the sum of nine hundred (\$900.00) dollars;

With Anton Velcek for the purchase from him for the corporate purposes of this District of the land hereinafter described for the sum of five hundred (\$500.00) dollars;

With Anna Vesela for the purchase from her for the corporate purposes of this District of the land hereinafter described for the sum of thirteen hundred (\$1,300.00) dollars;

With Johana Klank for the purchase from her for the corporate purposes of this District of the land hereinafter described for the sum of twenty-two hundred (\$2,200.00) dollars.

Unpaid balances for purchase money are due upon Lots sixteen (16), twenty-five (25), twenty-seven (27) and twenty-nine (29) aforesaid to Adolph J. Sabath, for which for convenience of settlement separate warrants should be drawn.

Your Committee recommend that the Clerk of this District be directed to pay, on the vouchers of the Attorney, to said Frank Janos the sum of four hundred and fifty-three (\$453.00) dollars, and to Adolph J. Sabath the sum of forty-seven (\$47.00) dollars, in full payment for the following described land, to-wit:

Lot sixteen (16) in Sabath's Resubdivision of Block four (4) of Manchester, said Manchester being a subdivision of

that part lying north (N) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) north, Range thirteen (13), east of the Third Principal Meridian.

To said Frank Hauzer the sum of five hundred (\$500.00) dollars, in full payment for the following described land, to-wit:

Lot twenty (20) in Sabath's Re-subdivision of Block four (4) of Manchester, said Manchester being a sub-division of that part lying north (N.) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) north, Range thirteen (13), east of the Third Principal Meridian.

To said Frank Kruls the sum of six hundred and thirty-four and fifty-three one-hundredths (\$634.53) dollars, and to Adolph J. Sabath the sum of two hundred and sixty-five and forty-seven one-hundredths (\$265.47) dollars, in full payment for the following described land, to-wit:

Lot twenty five (25) in Sabath's Re-subdivision of Block four (4) of Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) north, Range thirteen (13), east of the Third Principal Meridian, together with a one-story frame cottage situated on Block five (5) in Lichty's subdivision of Blocks four (4) and five (5) of said Manchester.

To said Anton Velcek the sum of two hundred and thirty-six and fifteen one-hundredths (\$236.15) dollars, and to Adolph J. Sabath the sum of two hundred and sixty-three and eighty-five one-hundredths (\$263.85) dollars, in full payment for the following described land, to-wit:

Lot twenty-seven (27) in Sabath's Re-subdivision of Block four (4) of Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty nine (39) north, Range thirteen (13), east of the Third Principal Meridian.

To said Anna Vesela the sum of one thousand one hundred and ninety-five (\$1,195.00) dollars, and to Adolph J. Sabath the sum of one hundred and five



(\$105.00) dollars, in full payment for the following described land, to-wit:

Lot twenty-nine (29) in Sabath's Re-subdivision of Block four (4) of Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) north, Range thirteen (13), east of the Third Principal Meridian.

To said Johana Klank the sum of two thousand, two hundred (\$2,200.00) dollars in full payment for the following described land, to-wit:

Lots thirty (30), thirty-one (31) and thirty-two (32) in Sabath's Re-subdivision of Block four (4) of Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) north, Range thirteen (13), east of the Third Principal Meridian.

All of said above described lands lying and being situate in the County of Cook, State of Illinois.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*  
 L. E. COOLEY.  
 W. H. RUSSELL,  
 JOHN J. ALTPETER,  
 WM. BOLDENWECK,

*Joint Committee on Finance and Engineering."*

RELINQUISHMENT OF SECTION 3 BY MCARTHUR BROTHERS AND SETTLEMENT THEREFOR.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, transmitting agreement in duplicate with McArthur Brothers for the release of all their rights under the contract for Section 3 of the Main Channel and settlement therefor, and recommending that the President and Clerk be directed to execute the said agreement on behalf of the District, as provided in the report; and the report and accompanying agreement were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, with accompanying agreement, ordered printed and placed on file, the recommendations made in the report concurred

in and the President and Clerk directed to execute the said agreement on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, with accompanying agreement, ordered printed and placed on file, the recommendations made in the report concurred in, and the President and Clerk directed to execute the said agreement on behalf of the District, as provided in the report.

The following is

THE REPORT, WITH ACCOMPANYING AGREEMENT:

"CHICAGO, Jan. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On October 25, 1893, your Honorable Body approved the majority report of this Committee, recommending a basis of settlement of all differences between McArthur Brothers and the District, in regard to Contract Sections two (2), three (3) and four (4).

Pursuant to the terms of the settlement thus agreed upon, the Chief Engineer has made a final estimate of the amount due said McArthur Brothers for work on Section three (3) up to the time of the discontinuance of the same, and we submit herewith for your approval a memorandum of an agreement embodying their receipt for the balance due them under said contract and a reciprocal release by the parties thereto of all claims growing out of said contract for Section three (3) aforesaid, and recommend that the President and Clerk be directed to execute same upon the part of the District.

Respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*  
 B. A. ECKHART,  
 W. H. RUSSELL,  
 WM. BOLDENWECK,  
 JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(Accompanied by Agreement.)

AGREEMENT:

"This agreement, made this first day of

November, A. D. 1893, between the Sanitary District of Chicago, party of the first part, and Archibald McArthur and Arthur F. McArthur, sole surviving members of the firm of McArthur Brothers, party of the second part, witnesseth:

THAT WHEREAS, Said co-partnership of McArthur Brothers did, on the 14th day of July, A. D. 1892, enter into certain agreements with first party, to do all the work and to furnish all material, tools, explosives, labor and appliances and appurtenances called for by said agreements in the manner and under the conditions therein stipulated that should be necessary to the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel known and distinguished by the specifications in said agreements contained and the plans accompanying them as Sections two (2), three (3) and four (4), together with the building of all collateral works which by the terms of said contracts were included in same; and,

WHEREAS, Differences of opinion thereafter arose between said contracting parties as to the classification of certain material found upon their contract sections, resulting in discontinuance of work thereon by second party, and the advertising for bids by first party for re-letting the work on same; and,

WHEREAS, A settlement was made between the parties hereto, by which all differences were adjudicated, part of which settlement has been incorporated into two supplementary agreements in regard to said Sections two (2) and four (4).

*Now, therefore*, in furtherance of said final settlement, and in accordance with the agreement then entered into, it is hereby mutually agreed as follows:

Said second party on their part in consideration of the premises, and of the payment to them by first party of the sum of \$4,012.20, being the amount due them for work on said Section three (3), up to the time of the discontinuance of work thereon by them, the receipt of which said sum is hereby acknowledged by them, hereby release all rights, claims and demands of whatsoever kind and nature which they have or might have growing out of the contract relation established between them and first party, by reason of said agreement of July 14, 1892, for work on said Section three (3).

First party, on its part, in consideration of the premises, hereby releases second party from all claims, demands and rights of action whatsoever which it has, or might have by reason of said contract for said Section three (3).

*In witness whereof*, the said Sanitary District of Chicago has caused these presents to be executed by its President, and attested by its Clerk, and its corporate seal to be hereto affixed, and said party of the second part have hereunto set their hands and seals the day and year first above written."

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Cooley, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*





## PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

## SANITARY DISTRICT OF CHICAGO.

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 JANUARY 10, 1894.
 

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## OFFICIAL RECORD.

*Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

## REGULAR MEETING.

The two hundred and fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, January 10, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6), and subsequently Mr. Gilmore, making a total of seven (7) members, were present.

## MINUTES.

The minutes of the regular meeting held January 3, 1894, were approved as

printed, on motion of Mr. Russell, seconded by Mr. Boldenweck.

## VOUCHERS.

The Clerk presented the following vouchers:

## ENGINEERING DEPARTMENT.

*Construction Account—*

E. D. Smith & Co. (Sec. 10, making Levee water tight, Dec. 23, '93).....	\$6,453 48
Mason, Hoge & Co. (Sec. 11, making Levee water tight, Dec. 30, '93).....	9,957 31
Mason, Hoge & Co. (Sec. 12, making Levee water tight, Dec. 30, '93).....	4,136 39
Heldmaier & Neu, (Sec. A, making Levee water tight, Jan. 1, '94).....	1,581 18

Heldmaier & Neu, (Sec. B, making Levee water tight, Jan. 1, 94).....	\$ 983 05	
		\$23,111 41

## ENGINEERING DEPARTMENT.

Crane Co. (pipe and fittings, erosive test)	\$ 162 44
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## CLERICAL DEPARTMENT.

H. J. Armstrong & Co. (binding bids).....	\$ 3 00	
A. C. McClurg & Co. (stationery) .....	1 41	
M. Stern & Co. (sta- tionery).....	3 15	
J. Underwood & Co. (stationery).....	4 40	
Warner's Towel Sup- ply, (towelng).....	1 50	
Waukesha Hygeia Min- eral Springs Co. (water).....	3 75	
Trevor Spring Water Co. (ice).....	3 00	
		\$ 20 21

## LAW DEPARTMENT.

Chicago Telephone Co. (telephone).....	\$ 31 25	
Western Union Tele- graph Co., (telegraph service).....	3 38	
S. A. Moffett Co. (liv- ery) .....	15 00	
Thos. B. Lantry, (trav- eling).....	9 00	
Orrin N. Carter, (ex- pense).....	75 00	
		\$ 133 63

## GENERAL ACCOUNT.

H. J. Armstrong & Co. (printing bond prospectus).....	\$ 55 00	
Franz Gindele Printing Co. (printing).....	27 00	
Western Bank Note & Engraving Co. (en- graving bonds and changes in plate)....	1,225 00	
Lord & Thomas, (ad- vertising bonds).....	600 00	
Chicago Telephone Co. (telephone).....	31 25	
		\$ 1,938 25

## POLICE DEPARTMENT.

Dan H. Hurley, (coal, Summit).....	\$ 36 25	
Edward Maguire, (horse shoeing).....	5 00	
Foley & Bresnigham, (wells at stations, Estimate No. 2).....	200 82	
Stephenson & Keller, (feed).....	38 06	
John Bigane, (carriage)	150 00	

L. C. Chase & Co. (car- riage robes).....	\$ 14 60	
The Kauffman Buggy Co. (harness, etc.)....	71 00	
Edward Williams, (ex- pense).....	87 23	
		\$ 602 96

Grand total..... \$25,968 90

Mr. Boldenweck, seconded by Mr. Russell, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 471, Law Department, (station- ery).....	\$10 77
No. 709, Treasury Department, (bond register).....	20 00
No. 920, Police Department, (sup- plies).....	13 50
Total.....	\$44 27

Mr. Eckhart, seconded by Mr. Boldenweck, moved that Requisition No. 471, for the Law Department, No. 709, for the Treasury Department, and No. 920, for the Police Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 471, for the Law Department, No. 709, for the Treasury Department, and No. 920, for the Police Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District, for the week ending January 6, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Jan. 10, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending January 6, 1894, as the same have been reported to me :

Engineering Department....	(No report.)
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	36

Total employes..... 49

Up to this writing no report has been received from the Engineering Department as to the force employed therein.

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

INQUIRY INTO ALLEGED IMPORTATION OF  
LABOR.

The Clerk presented a report, transmitting ten (10) letters, being replies from contractors with reference to the alleged importation by contractors of labor on the works of the District, made in response to an order passed at the meeting held December 27, 1893, (page 1652 of the Proceedings); and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report, with accompanying letters, be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT WITH ACCOMPANYING LETTERS:

"CHICAGO, Jan 10, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—In response to the order of your Honorable Body at the meeting held December 27, 1893, (page 1652 of the Proceedings) directing the Clerk to correspond with the various contractors on the Main Channel, and inquire if any of the said contractors have at any time directed or given orders to any labor

agency in Chicago with reference to the importation or furnishing of any men from outside of Chicago for employment on the works of the District or on the sections under their control, I have to report that I duly corresponded with each of the contractors, and transmit to your Honorable Body herewith the replies received.

The answers indicate that none of the contractors have imported labor nor at any time given any order to labor agencies in Chicago for such importation of men.

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

(Ten (10) letters endorsed.)

(Enclosures.)

"CHICAGO, Jan. 2, 1894.

*To the Honorable the Board of Trustees,  
Sanitary District, Hon. Thos. F.  
Judge, Clerk, Chicago, Illinois:*

DEAR SIR—In answer to your letter of December 29, I beg to say that ever since my business relations with your Honorable Body began, it has been my conviction that it was the desire of the Board of Trustees that in the prosecution of the work on the Drainage Canal, as far as possible, only citizens of the United States and residents and tax-payers of the City of Chicago should be employed on the work, giving the preference to men with families.

In respecting and giving force to this desire of the Board, I have employed only residents of Chicago, having at all times found an abundant supply.

No outside labor has ever been employed by me on the works, nor have I had recourse to any agency to secure men for my employment.

Yours very truly,

(Signed) ALFRED HARLEV."

"CHICAGO, Jan. 2, 1894.

*Mr. Thos. F. Judge, Clerk, Sanitary  
District, Chicago;*

DEAR SIR—Answering your letter of December 29: We have not authorized or given orders to any labor agencies in Chicago, for the importation of men from outside of the city for work on the Drainage Canal. It has been, and is, our intention to obtain the laborers for our work on the Canal from residents of



Chicago and Cook County, as long as a sufficient supply for the work can be obtained from this source.

Very truly yours,

(Signed) MCARTHUR BROTHERS."

"WILLOW SPRINGS, Jan. 1, 1894.

Mr. Thos. F. Judge, Clerk Board of Trustees, Chicago:

DEAR SIR—Replying to yours of December 29, 1893: Most of our employes are men that applied personally for work on the Canal and were hired by our foreman. We have about 100 men now on the work that were supplied by a labor agency at Chicago, and it is my understanding that they were all employed in Chicago; at least we gave no directions to the agent with reference to the furnishing of men from outside the city, and do not think he would go to that extra expense without special instructions, which he certainly did not get.

Yours truly,

(Signed) E. B. MCNEILL,  
Sec. for Gilman & Co."

"CHICAGO, Dec. 30, 1893.

Thos. F. Judge, Esq., Clerk Sanitary District, City:

DEAR SIR—Replying to yours of the 29th, relative to whether we had authorized agencies in Chicago to import men on our work at the Sanitary District, we beg to state that we have not done so and do not propose to.

Yours truly,

(Signed) AGNEW & Co.,  
W."

"ROMEOWILLE, Ill., Jan. 1, 1894.

Thos. F. Judge, Esq., Clerk Sanitary District of Chicago, Chicago, Ill.:

DEAR SIR—Answering your letter of December 29th, in regard to the employment of outside labor on the District work: We have never given any firm in Chicago or elsewhere any orders to employ for us any labor outside of Chicago.

Yours very truly,

(Signed) E. D. SMITH & Co.

"ROMEOWILLE, Ill., Dec. 31, 1893.

Mr. Thos. F. Judge, Clerk Sanitary District of Chicago, Illinois:

DEAR SIR—In reply to your favor of the

29th inst: We have never given orders to any labor agency in Chicago or elsewhere with reference to importation or furnishing any men from outside Chicago, and we have never brought any men here except when we first came here.

Yours very respectfully,

(Signed) MASON, HOGE & Co.

WILLIAMSON."

"MT. FOREST, Ill., Dec. 30, 1893.

Thos. F. Judge, Esq., Clerk Sanitary District, Chicago, Ill.

DEAR SIR—Replying to your esteemed favor of yesterday, permit us to say that we have never employed any outside labor and have never employed a man through any labor agency in Chicago or elsewhere, nor have any such men been on our work to our knowledge.

Yours very truly,

(Signed) HELDMAIER & NEU,

Successors to L. D. CONNER & Co.

Per A. A. Osgood."

"SUMMIT, Ill., Jan. 1, 1894.

Thos. F. Judge, Clerk:

DEAR SIR—In reply to your favor of December 29 will say that we have procured through a labor agency in Chicago two cooks and a boiler maker, but they were all residents of Chicago.

Yours truly,

(Signed)

WESTERN DREDGING & IMPROVEMENT CO.

J. O. WRIGHT, G. M."

"SUMMIT, Ill., Dec. 30, 1893.

Mr. Thomas F. Judge, Clerk of the Sanitary District of Chicago:

DEAR SIR—We have never authorized or given orders to any labor agency with reference to the importation or furnishing of men from outside of Chicago on the works of the District or on the section for which we are contractors. In beginning our work last spring we ordered some labor from labor agencies occasionally through the summer, a cook or a man for some special duty. August 3rd last we gave our last order. Was for station men to ditch wet ground.

Yours truly,

(Signed) STREETER & KENEFICK."

"CHICAGO, December 30, 1893.

*Thos. F. Judge, Esq, Clerk Sanitary District, City:*

DEAR SIR—Replying to your favor of the 29th inst., in reference to the employment of labor, beg to say that we have authorized no labor agency to employ men for us. Our wants are supplied by men applying in person on the work.

Yours respectfully,

(Signed) RICKER, LEE & Co."

#### MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of December, 1893.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Jan. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to herewith report that the total amount expended on account of and charged to the Clerical Department during the month of December, 1893, was \$850.67, divided as follows:

Salaries.....	\$ 841.67
Stationery.....	4.50
General expenses.....	4.50
Total.....	<u>\$850.67</u>

There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$950.

The total amount expended and charged to the General Account during the month of December, 1893, was \$3,771.26, divided as follows:

Salaries.....	\$2,583.34
Advertising.....	530.49
Printing and Stationery.....	163.70
Janitor Service.....	80.00
History of District.....	300.00
General expenses.....	163.73
Total.....	<u>\$3,771.26</u>

There are outstanding liabilities against the General Account to the amount of \$600 for advertising, and the expenses

for the present month will be about \$6,500.

During the month of December, 1893, there were warrants authorized and drawn against the various accounts as follows:

Engineering Department.....	\$ 16,121.78
Clerical Department.....	850.67
Law Department.....	2,369.83
Treasury Department.....	166.67
General Account.....	3,771.26
Engineering Department (Construction Account).....	279,448.59
Law Department (Land Acc't).....	119,240.00
Police Department.....	4,170.71
Total.....	<u>\$426,139.51</u>

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

#### MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of December, 1893.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Jan. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith the monthly report for December, 1893. The total amount paid out by this Department is as follows:

#### Salaries.

Attorneys.....	\$ 1,549 99
Office force.....	320 00
	<u>\$ 1,869 99</u>

#### General Expenses.

Right of way.....	\$ 446 36
Court costs.....	46 72
Sundries.....	6 76
	<u>\$ 499 84</u>

#### Land Account.

Right of way.....	\$139,670 00
Total.....	<u>\$142 039 83</u>

The purchase of the Le Moyne and Wilshire lands, for which negotiations had long been pending, was finally concluded by the delivery of proper deeds therefor. A number of lots in the Subdivision "Manchester" have also been

purchased. Agreements have been reached with the owners of two of the tracts of land mentioned in my last report as set for trial for January 9, 1894, so that but one remains for trial. The owner of this tract applied for and obtained a change of venue, and the case is now set for trial for January 15th.

Attention has been given by the department to the preparation of the respective contracts for the work let by the District this side of Summit, as well as to the settling of the details of the sale of the bonds of the District.

The court proceedings in the case of the McCormick Construction Company have required much of the time of the department, as also the questions connected with the failure of the contractors for Section one (1), also for Sections five (5) to nine (9), inclusive, to meet the requirements of their contracts.

This department will be occupied during the coming month in the trial of the suit above mentioned, with the matters connected with said contract Sections one (1) and five (5) to nine (9), inclusive, and with routine work.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
*Attorney."*

#### MONTHLY REPORT FROM POLICE DEPARTMENT.

The Clerk presented a report from the Police Department, for the month of December, 1893.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Jan. 8, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg to submit the following report of the work of the Police Department from the date of last report to January 1, 1894.

Total number of arrests.....	89
Total amount of fines imposed.....	\$1358
Held to the grand jury.....	6
Committed to county jail.....	5
Sick and injured, sent to hospital...	3
Insane persons cared for and committed.....	1
Dead bodies recovered and cared for	6
Rescued from drowning in I. & M. Canal.....	1

Obstructions removed from railroad right of way..... 1

No changes have been made in the personnel of the force, nor has suspension or reprimand of any officer been necessary since last report. The barn authorized by your Honorable Body to be built at Sag Station is completed and in use, and the Department is prepared to furnish transportation to any of the officers of the District on request.

Respectfully submitted,

(Signed) EDWARD WILLIAMS,  
*Marshal."*

#### PLAT-BOOKS OF RIGHT OF WAY.

Mr. Boldenweck, for the Committee on Judiciary, presented a report, recommending that the Chief Engineer be directed to prepare three plat books of the right of way, as provided in the report; and the report was read.

Mr. Boldenweck, seconded by Mr. Russell, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Chief Engineer directed to prepare three plat-books of the right of way, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Chief Engineer directed to prepare three plat-books of the right of way, as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, Jan. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee have had under consideration the desirability of having plat-books of the lands of the District prepared for the use of the departments, and have reached the conclusion that permanent plats of lands which we have acquired for right of way should be made.

We therefore recommend that the Chief Engineer be directed to prepare three (3) plat-books, one each for the Engineering, Clerical and Law Departments of the District, 19 by 12 inches in



size, and on a scale of 200 feet to the inch, each page showing the plat of a half section east and west, and so much of said half section north and south as is included within the right of way of the District, or may seem to the Chief Engineer desirable, said plat-books to be of the general form and make-up of the city atlas prepared by Greeley & Carlson.

Respectfully submitted,

(Signed) WM. BOLDENWECK,  
JOHN J. ALTPETER,  
*Committee on Judiciary."*

PURCHASE OF "RICE" AND "O'NEIL"  
LANDS.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from Thomas J. Rice and John J. O'Neil of certain right of way lands in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands, on the vouchers of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Thomas J. Rice and John J. O'Neil, on the vouchers of the Attorney, for the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Thomas J. Rice and John J. O'Neil, on the vouchers of the Attorney, for the said right of way lands, as provided in the report.

The following is

• THE REPORT:

"CHICAGO, Jan. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with Thomas J. Rice for the purchase from him for the corporate purposes of this District of the land hereinafter described for the sum of seven

thousand five hundred and fifty-seven (\$7,557.00) dollars;

With John J. O'Neil for the purchase from him for the corporate purposes of this District of the land hereinafter described for the sum of one thousand eight hundred and twenty-five (\$1,825.00) dollars.

Your Committee recommend that the Clerk of this District be directed to pay, on the vouchers of the Attorney, to said Thomas J. Rice the sum of seven thousand five hundred and fifty-seven (\$7,557.00) dollars in full payment for the following described land, to-wit:

That part of the north half (N.  $\frac{1}{2}$ ) of the south half (S.  $\frac{1}{2}$ ) of the southwest quarter (S. W.  $\frac{1}{4}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section four (4), Township thirty-eight (38) north, Range thirteen (13), East of the Third Principal Meridian, lying north (N.) of the northerly boundary line of the right of way of the Chicago, Santa Fe and California Railway Company, and north (N.) of the north (N.) line of the south ten (S. 10) acres of the west half (W.  $\frac{1}{2}$ ) of said northeast quarter (N. E.  $\frac{1}{4}$ ); said premises lying and being situate in the County of Cook, State of Illinois.

To said John J. O'Neil the sum of one thousand eight hundred and twenty-five (\$1,825.00) dollars, in full payment for the following described land, to-wit:

That part of the northwest quarter (N. W.  $\frac{1}{4}$ ) of the southeast quarter (S. E.  $\frac{1}{4}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-five (35), Township thirty-nine (39) north, Range thirteen (13), East of the Third Principal Meridian, lying south (S.) of a line drawn from a point in the west (W.) line of said northeast quarter (N. E.  $\frac{1}{4}$ ), thirty-three and ninety-four one-hundredths (33.94) feet north (N.) of the center of said section, to a point in the east (E.) line of said section, one thousand and ninety and ten one-hundredths (1090.10) feet north (N.) of the east (E.) quarter corner of said section; said premises lying and being situate in the County of Cook, State of Illinois.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*  
W. H. RUSSELL,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,  
L. E. COOLEY.

*Joint Committee on Finance and Engineering."*

COMPLETION OF CONTRACTS ON SECTIONS  
G, H, L AND M AND NEW BOND  
ON SECTION 3.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, returning signed contracts and bonds, in duplicate, with Messrs. Gahan & Byrne and the Heidenreich Company, on Sections G and H and L and M of the Main Channel, and also transmitting an additional bond given by Messrs. Gilman & Company on Section 3, recommending that all of the same be approved and placed on file, the checks deposited with the bids for the same be returned, and further recommending that the President and Clerk be authorized and directed to execute the said contracts on behalf of the District, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Russell, moved that the report be adopted, ordered printed and, with enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said contracts on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said contracts on behalf of the District, as provided in the report.

The following is

THE REPORT:

"CHICAGO, Jan. 10, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance presents herewith the contracts of the Heidenreich Company, accompanied by approved bonds, for Sections L and M of the work this side of Summit, Illinois, awarded by this Board December 23, 1893.

E. Lee Heidenreich and Harold Boedker, stockholders in said company, having expressed a willingness to join personally with said company in said contracts, it seems to your Committee desirable that they do so, and the contracts have been so prepared.

We also submit the contracts of Gahan & Byrne for Sections G and H, accompanied by approved bonds, and we recommend that the President and Clerk be authorized and directed to execute said respective contracts on the part of the District, and that the Clerk be directed to return to said Heidenreich Company and to said Gahan & Byrne the checks deposited by them respectively with their bids.

Your Committee also submits herewith an additional bond furnished by Gilman & Company for Section three (3), rendered necessary by the failure of the surety on the bond previously given by them, and recommend its acceptance by your Honorable Body.

Respectfully submitted,

(Signed)

B. A. ECKHART,

*Chairman.*

W. H. RUSSELL,

*Committee on Finance."*

(Accompanied by four (4) completed bonds and contracts in duplicate and one supplemental bond.)

CHANGES IN ENDS OF SECTIONS D, E AND F.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, accompanied by an order and three agreements in duplicate, recommending and providing for certain changes in the division lines between Sections D, E and F, as provided in the order; and the report and enclosures were read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report and order be adopted, with enclosed agreements, ordered printed and placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed as provided in the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report and order adopted, with enclosed agreements, ordered printed and placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed as provided in the order.



The following is

THE REPORT, WITH ENCLOSURES:

"CHICAGO, Jan. 10, 1894.

*To the Honorable, the Board of Trustees,  
of the Sanitary District of Chicago:*

GENTLEMEN—By order of the Board of September 27, 1893, (page 1485 of Proceedings) this Committee was instructed to consider the advisability of certain changes in the division lines of Sections D, E and F, as suggested by the Engineering Department. The Committee considered the matter and determined that said changes were advisable and the Attorney has drawn the necessary agreements in the premises with the contractors for Sections D, E and F. These several agreements, duly signed, and an order setting forth all essential particulars are transmitted herewith for the approval of the Board.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*

B. A. ECKHART,  
W. H. RUSSELL,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and  
Finance."*

(Four (4) enclosures—one (1) order and three (3) agreements.)

The following is

THE ORDER:

"WHEREAS, It is desirable that the terminations of Contract Sections D, E and F of this District be changed so as to make same conform with natural boundary lines, therefore, be it

*Ordered*, That the President and Clerk be authorized and directed to execute on the part of this District agreements (prepared by the Attorney) with the contractors for Contract Sections D, E and F of this District, changing the boundary lines of said Contract Sections as follows:

With E. D. Smith & Co., changing the easterly termination of Contract Section D and fixing same at the westerly boundary line of the right of way of the Chicago & Calumet Terminal Railway Company instead of at Station 510 as fixed in said contract.

With Streeter & Kenefick, changing

the boundary lines of Contract Section E and fixing the westerly termination of said contract section at the westerly boundary line of the right of way of the Chicago & Calumet Terminal Railway Company instead of at Station 510, and the easterly termination of said section at the westerly boundary line of the Summit and Riverside highway, as now located and in use, instead of at Station 460.

With Ricker, Lee & Co., changing the boundary lines of Contract Section F and fixing the westerly termination of said contract section at the westerly boundary line of the Summit and Riverside highway, as now located and in use, instead of at Station 460, and the easterly termination of said section at the range line between Ranges No. 12 and No. 13, East of the Third Principal Meridian, in Cook County, Illinois, instead of at Station 415

The following are

THE AGREEMENTS:

"WHEREAS, It is desirable that the easterly termination of the work herein contracted for be changed so as to make same coincident with the westerly boundary line of the right of way of the Chicago & Calumet Terminal Railway Company.

NOW, THEREFORE, In consideration of the reciprocal promises herein made, it is agreed by the undersigned as follows:

First—The easterly termination of Contract Section D is hereby changed and fixed at the westerly boundary line of the right of way of the Chicago & Calumet Terminal Railway Company instead of at Station 510 as fixed in said contract.

Second—All the terms and conditions of said contract shall apply to, control and govern the additional excavation and other work rendered necessary by the change of termination hereby agreed upon; but the Sanitary District of Chicago shall at its own expense put up the additional trestle work required for the extension of the levee rendered necessary by the above change in the easterly termination of said section.

IN WITNESS WHEREOF, Said E. D. Smith & Co. have hereunto set their hands and seals, and said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk and its corporate seal to be





hereto affixed this ... day of ... A. D.  
1893.

.....[SEAL]  
.....[SEAL]  
.....[SEAL]  
.....

President.

Attest:

.....  
Clerk.

The undersigned, surety for the contractor upon the within contract, hereby consents to the foregoing changes in the boundary lines of the work contracted for, and expressly agrees that said changes shall in nowise alter or affect its liability as surety upon the bond of said contractor."

.....  
.....  
.....

CHANGES AND STIPULATIONS ON SECTIONS  
1 AND 5 TO 9 TO BE CONSIDERED.

Mr. Altpeter presented an order directing the Joint Committee on Engineering and Finance to consider the necessary changes and stipulations with reference to Sections 1 and 5 to 9, on which notice of forfeiture had been given; and the order was read.

Mr. Altpeter, seconded by Mr. Russell, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Joint Committee on Engineering and Finance directed in accordance with the same.

The following is

THE ORDER:

"Ordered, That the Joint Committee on Engineering and Finance be instructed to consider any necessary changes and stipulations in reference to continuing the work on Contract Sections one (1), five (5), six (6), seven (7), eight (8) and nine (9), as to which notice of forfeiture has been given."

DISPOSITION OF FORFEITED BID CHECKS  
ON SECTIONS D AND E, DEPOSITED  
OCTOBER 19, 1892.

Mr. Eckhart presented an order, au-

thorizing and directing the Clerk to return the check of the lowest bidders on Section D on the letting of October 19, 1892, and directing that the check deposited by said lowest bidders on Section E at the same letting, be declared forfeited and covered into the Treasury of the Sanitary District; and the order was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk directed in accordance with the same.

The following is

THE ORDER:

"WHEREAS, Checks subject to forfeiture on Contract Sections D and E have been retained by the Clerk of the District on account of the failure of the lowest bidder on said sections to qualify, and said checks have not been disposed of by the Board; and,

WHEREAS, This Board is convinced that said lowest bidder acted in entire good faith and have performed all their engagements as contractors for the District on Section F in a satisfactory manner, and have consented to a change in the work on said Section F, which said contractors consider detrimental to their interest and in favor of the District; and,

WHEREAS, The District after the failure of said lowest bidder to qualify on said Sections D and E, let Section D to another contractor without re-advertising, but found it necessary to re-advertise for the work on Section E;

Therefore, Be it ordered that the Clerk be directed to return the check to said lowest bidder held against said Section D, and that the check held against said Section E be covered into the Treasury by said Clerk."

ADJOURNMENT TO SPECIAL TIME.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that when the Board adjourn, it do adjourn to meet Saturday, January 13, 1894, at 1 o'clock P. M.

The motion prevailed unanimously, and it was so ordered.

CLERK TO NOTIFY EMPLOYMENT AGEN-  
CIES.

Mr. Boldenweck presented an order, directing the Clerk to notify employment agencies who have been advertising for men for work on the Main Channel that no men are needed; and the order was read.

Mr. Boldenweck, seconded by Mr. Alt-peter, moved the adoption of the order.

The motion prevailed unanimously, and the President declared the order adopted, and the Clerk directed in accordance with the same.

The following is

## THE ORDER:

*“Ordered,* That the Clerk of the Sanitary District notify such employment agencies as have been advertising for men to work on the channel of the Sanitary District that he has communicated with all the contractors on the channel, and that none are in need of men.”

## ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES,  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

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JANUARY 13, 1894.

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OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

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ADJOURNED MEETING.

The adjourned session of the two hundred and fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Saturday, January 13, 1894, at 1 o'clock P. M., pursuant to motion.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6) members, were present.

ASSIGNMENT OF CONTRACT FOR SECTION  
14 BY M'CORMICK CONSTRUCTION COM-  
PANY TO SMITH & EASTMAN.

Mr. Kelly, Chairman, presented a joint report from the Joint Committee on Judiciary and Engineering and the Joint Committee on Engineering and Finance, accompanied by three (3) communications, bond, five (5) agreements in duplicate, with stipulations, all with reference to the sale and assignment of the contract with the McCormick Construction Company on Section 14 of the Main Channel to Messrs. Smith & Eastman; and the report and enclosures were read.

Mr. Kelly, seconded by Mr. Cooley, moved that the report be adopted, with enclosed communications and agreements, with stipulations, ordered printed, the accompanying bond approved,

and the report, with all enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the accompanying agreements on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, with enclosed communications and agreements, with stipulations, ordered printed, the accompanying bond approved, and the report, with all enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the accompanying agreements on behalf of the District, as provided in the report.

The following is

THE REPORT, WITH ACCOMPANYING AGREEMENTS, ETC.:

“CHICAGO, January 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—By order of the Board, passed December 13, 1893, (page 1616 of the Proceedings) a communication of P. J. Sexton, Receiver of the McCormick Construction Company, was referred to the Joint Committee on Judiciary and Engineering, together with the Attorney, with instructions that pending the consideration of the question of forfeiture and the request of the Receiver for delay on account of certain legal proceedings, no action be taken by the Board until said Committee had reported in the premises.

On November 21, 1893, (page 1582 of the Proceedings) a communication of Michael W. Ryan and Henry McGurran, bondsmen for the McCormick Construction Company, was received and referred to the Joint Committee on Engineering and Finance. Said communication also referred to the forfeiture of Section 14.

On September 6, 1893, (page 1436 of the Proceedings) there was referred to the Joint Committee on Engineering and Finance the question of the construction of the embankment to the west of the Main Channel in view of the contention of the contractor that he was not required to do this work. The attention of the Committee has also been called to the question of the berms along the Main

Channel through the “Red Mound” as matters undetermined in the contract.

In view of the assignment of this section through the order of the United States Circuit Court, subject to the concurrence of this Board, it has become necessary to consider the several matters thus referred and to mature such stipulations as will dispose of all matters in question in regard to Contract Section 14. Accordingly the two Committees have considered all pending questions concurrently.

There is submitted herewith the assignment by the Receiver, under order of the Court, to the firm of Smith & Eastman of Contract Section 14, with a bond, which have been examined and approved by the Committee on Finance, acting as a sub-committee. The Assignee is to continue the work in every respect as called for by the original contract, and subject to all its requirements and limitations, and in conformity to certain additional stipulations. The additional stipulations are also submitted, and relate to the manner of removing the “glacial drift” through the “Red Mound” and disposing of the same in two embankments, the westerly one extending throughout the section, and the easterly one extending throughout the lower half of the section, said embankment being designed to protect the work from the Desplaines River and the overflow from the canal and Long Run, and to retain the water in the Main Channel after the same has been completed.

The westerly embankment is to be done without extra cost, as part of the original contract for the easterly bank and an additional sum of sixteen cents per cubic yard is stipulated. The necessity of extending these embankments for a distance of some four thousand feet down the slope beyond Section 14 has been shown by the Engineering Department, it is also shown that the mound is the only suitable material available, and that it can be most cheaply placed under the contract for Section 14. It has therefore been stipulated that these extensions are to be made at an additional cost of sixteen (16) cents per cubic yard for the material removed beyond the limits of Section 14, provided the amount required is not less than 100,000 cubic yards.

It is recommended that the Board approve the assignment and the stipulations as herewith submitted, and that the President and Clerk be directed to execute the same on the part of the District.

The several communications referred

to herein are returned for filing. The letter of the Chief Engineer is submitted herewith.

Very respectfully submitted,

(Signed) THOMAS KELLY,  
*Chairman.*

JOHN J. ALTPETER,

W. H. RUSSELL,

L. E. COOLEY,

*Joint Committee on Judiciary and Engineering.*

(Signed) L. E. COOLEY,  
*Chairman.*

THOMAS KELLY,

W. H. RUSSELL,

JOHN J. ALTPETER,

B. A. ECKHART,

*Joint Committee on Engineering and Finance."*

(Three (3) communications, bond and five (5) agreements in duplicate with stipulations.)

#### AGREEMENTS WITH STIPULATIONS:

"*Know all men by these presents, That I, Patrick J. Sexton, Receiver of the McCormick Construction Company, pursuant to an order of the United States Circuit Court for the Northern District of Illinois, entered in said court on the fifth (5th) day of January, A. D. 1894, in the suit of Eugenia Crimp vs. McCormick Construction Company, et al., Case No. 23174, in consideration of the sum of thirty-three thousand (\$33,000.00) dollars to me in hand paid by Ezekiel Smith and Joseph Eastman, co-partners doing business in the firm name and style of Smith & Eastman, do hereby sell, assign, transfer and convey to said Smith & Eastman all the right, title and interest of said McCormick Construction Company in and to a contract dated the twelfth (12th) day of July, A. D. 1892, entered into by said McCormick Construction Company with the Sanitary District of Chicago for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section fourteen (14), together with the building of all collateral works which by the terms of said*

contract are included in the same, and do also hereby sell, assign, transfer and convey to said Smith & Eastman all the right, title and interest of said McCormick Construction Company in and to any moneys now due, or that may hereafter become due, and payable under the terms and conditions of said contract.

*In witness whereof, I have hereunto set my hand and seal this sixth (6th) day of January, A. D. 1894.*

.....[SEAL]

*Receiver of the McCormick Construction Company."*

"We, the undersigned, Ezekiel Smith and Joseph Eastman, co-partners, doing business under the firm name and style of Smith & Eastman, in consideration of the assignment to us by the Receiver of the McCormick Construction Company of all the right, title and interest of said company in and to its contract with the Sanitary District of Chicago, dated the twelfth (12th) day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section fourteen (14), together with the building of all collateral works which by the terms of said contract are included in the same, and in and to any moneys due or that may hereafter become due thereunder, do hereby on our part covenant and agree faithfully to carry out and perform all the terms and conditions of said contract asset forth in the same.

We further agree to furnish a bond in the sum of one hundred thousand (\$100,000.00) dollars, with sureties satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of said contract, and should the sureties on said bond or upon any bond given by us, at any time fail financially or be, in the opinion of said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, we agree to furnish a new or additional bond in the place of any bond so having become insufficient or worthless within ten days after having received written notice from said Sanitary District of Chicago so to do.

We further agree that said contract



shall be modified in accordance with the stipulations of this date entered into between us and said Sanitary District of Chicago which are hereunto attached and made part hereof.

*In witness whereof*, we have hereunto set our hands and seals this sixth (6) day of January, A. D. 1894.

.....[SEAL]

.....[SEAL]"

"In consideration of the assignment to Ezekiel Smith and Joseph Eastman, doing business under the firm name and style of Smith & Eastman, of the contract of the McCormick Construction Company with the Sanitary District of Chicago, of the date of July 12, A. D. 1892, and the consent thereto of said Sanitary District of Chicago, the parties hereto hereby covenant and agree that said contract shall be and the same is hereby modified in accordance with the stipulations here following, but in all other respects to be and remain in full force and effect.

#### STIPULATIONS.

It is covenanted and agreed that the recommendations contained in the report of the Joint Committee on Engineering and Finance, adopted by the Board of Trustees of the Sanitary District of Chicago, June 29, 1892, and printed in its Proceedings on page 607, shall be and the same are hereby made a part of said contract so far as same are applicable to said Section fourteen (14), the same being understood to require an embankment thirty (30) feet wide on top and to a level of eight (8) feet above datum, said embankment to be constructed of glacial drift and to be located eight hundred (800) feet from the westerly edge of the Main Channel and parallel thereto throughout said Section fourteen (14). It is further agreed that said embankment shall be extended to a point not exceeding four thousand (4,000) feet southward from the south end of said section, and shall be so located below said Section fourteen (14) as to conform to the route for the Main Channel adopted by the Board of Trustees of said Sanitary District, April 12, 1893. This embankment shall be constructed of material excavated from what is known as the Red Mound near the

north end of said Section fourteen (14) and classed as glacial drift.

In addition thereto there shall be constructed an embankment at the easterly side of the Main Channel which shall be of the same material and dimensions as the embankment above specified. The center line of this additional embankment shall be one hundred and fifty (150) feet east of the center line of the Main Channel and parallel thereto. Its northern extremity shall be at or near station 1450, as may be determined by the Chief Engineer, and it shall extend southerly to a distance not to exceed four thousand (4,000) feet south of the southerly end of said Section fourteen (14), and shall be so located below said Section fourteen (14) as to conform to the route for the Main Channel adopted by the Board of Trustees of said Sanitary District, April 12, 1893.

All grass, trees, stumps and vegetable matter shall be removed from the bases of said embankments before same are constructed, said material to be deposited at the side of said embankments farthest from the line of the Main Channel. The embankments herein provided for shall be fully completed on or before September 15, 1894, unless delayed by failure of said Sanitary District beyond May 1, 1894, to acquire possession of the land, and if so delayed beyond May 1, 1894, then the time for the completion of said embankments shall be extended as much beyond said September 15, 1894, as the obtaining possession of the land shall be after said May 1, 1894. For such portions of said embankments as lie outside the limits of said Section fourteen (14) the contractor shall not use any space beyond the limits of the bases of the embankments for doing said work, without the consent of the Engineer, nor shall he interfere with any other work being done or to be done by the Sanitary District. In consideration of said work being done in accordance herewith and conformably to the instructions of the Chief Engineer, said Sanitary District agrees to pay for the material entering into the whole of said easterly embankment and into such portion of said westerly embankment as lies outside the limits of said Section fourteen (14) the sum of thirty-six (36) cents per cubic yard measured in excavation. For the material entering into that portion of the westerly embankment lying within said

Section fourteen (14), no charge shall be made beyond the twenty cents (20c.) per cubic yard for excavation provided for in said original contract; provided that the material required for said embankments below said Section fourteen (14) shall not be less than 100,000 cubic yards.

The excavation through the mound known as the Red Mound aforesaid, shall be made in such manner as to leave a berm of fifty (50) feet on each side of the Main Channel at an elevation of six (6) feet above datum; provided, that the contractor may, at his option, excavate the glacial drift overlying the rock in the east berm north of said Station 1450, below the elevation of six (6) feet above datum, and place the material so excavated in the embankments herein specified, the excavation so made to be subsequently filled back, at the expense of the contractor, with rock excavated from the main channel. The side slopes of the excavation and the embankments herein mentioned shall be one and one half (1½) feet horizontal to one (1) foot vertical. And should further excavation of said mound be necessary in order to complete the embankments herein provided for, the same shall be made under the direction of the Chief Engineer.

Said Sanitary District reserves the right of entering upon said Section fourteen (14) at any time, by itself or its agents, for the purpose of removing any portion of said mound not used for said embankments which it may desire to use for any purpose, provided that in so doing it shall not unnecessarily interfere with the work of said contractor.

*In witness whereof*, the Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part have hereunto set their hands and seals this sixth (6th) day of January, A. D. 1894.

.....[SEAL]  
.....[SEAL]  
.....[SEAL]  
.....  
President.  
Attest:  
.....  
Clerk.

"The Sanitary District of Chicago hereby consents to the assignment by the Receiver of the McCormick Construction Company to Ezekiel Smith and Joseph Eastman, co-partners, doing business under the firm name and style of Smith & Eastman, of the contract of said company with said Sanitary District of Chicago, dated the twelfth (12th) day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago, known as Section fourteen (14), together with the building of all collateral works, which by the terms of said contract, are included in the same on condition that said Smith & Eastman do furnish a bond with good and sufficient sureties thereon in the sum of one hundred thousand (\$100,000,000) dollars, conditioned for the faithful performance of said contract in accordance with its terms and conditions, and should said bond, or any bond given by them, at any time become insufficient security for the penalty thereof by reason of the failure of the sureties thereon, then said Smith & Eastman to furnish a new or additional bond to be approved by said Sanitary District of Chicago within ten days after written notice by said Sanitary District so to do. And on the further condition that Patrick J. Sexton shall personally guarantee the faithful performance by said Smith & Eastman of all the terms and conditions of said contract. The notice of forfeiture of said contract heretofore served on said McCormick Construction Company is hereby waived and withdrawn.

Said contract is to be modified in accordance with the stipulations of this date which are hereto attached and made part hereof.

*In witness whereof*, Said Sanitary District of Chicago has caused these presents to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed this sixth (6th) day of January, A. D. 1894.

.....  
President.  
Attest:  
.....  
Clerk."

"In consideration of the consent of the



Sanitary District of Chicago to the assignment to Ezekiel Smith and Joseph Eastman, co-partners, doing business under the firm name and style of Smith & Eastman, of the contract of the McCormick Construction Company with it, dated the twelfth (12th) day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section fourteen (14), together with the building of all collateral works which by the terms of said contract are included in the same, I do hereby guarantee the faithful performance by said Smith & Eastman of all the terms and conditions of said contract so assigned to them, and also the performance by them of the covenants this day entered into by them upon the acceptance of said assignment of said contract.

And I further covenant and agree that in case the said contract shall be forfeited by reason of any default on the part of the said Smith and Eastman that I will pay to the said Sanitary District any increase in the cost of doing the work covered by said contract over and above what the same would have cost if said contract had been faithfully kept and performed by the said Smith & Eastman.

In witness whereof, I have hereunto set my hand and seal this sixth (6th) day of January, A. D. 1894.

.....[SEAL.]”

“CHICAGO, Jan. 12, 1894.

To the Committee on Engineering and Finance:

GENTLEMEN—I have to report that Mr.

Sexton has consented to the following terms for the removal of glacial drift from Section 14. The embankment on the west to be constructed from material removed from the cut without any charge additional to the original contract price of 20 cents. The embankment on the east, not called for in the original contract, but necessary as a part of the work of the section, to be built for 36 cents, or 16 cents in addition to contract price, (in this embankment there will be about 50,000 cubic yards) and to remove beyond Section 14 southward with an extreme haul of 4,000 feet, a minimum of 100,000 cubic yards for which the compensation is to be 36 cents, or contract price plus 16 cents.

Taking the minimum yardage	
hailed beyond Section 14 as.....	100,000
Embankment on Section 14, east...	50,000
Embankment on Section 14, west..	115,000
Gives a total of.....	<u>265,000</u>

cubic yards to be removed, or about 25,000 cubic yards more than will have to be removed in any event if berms of 50 feet are allowed on each side of the channel through the mound. Therefore the extra cost to the District of this work would be \$24,000—that is 150,000 cubic yards at 16 cents.

Respectfully submitted,

(Signed)                   ISHAM RANDOLPH,  
                                  *Chief Engineer.”*  
(Bond and two other referred communications.)

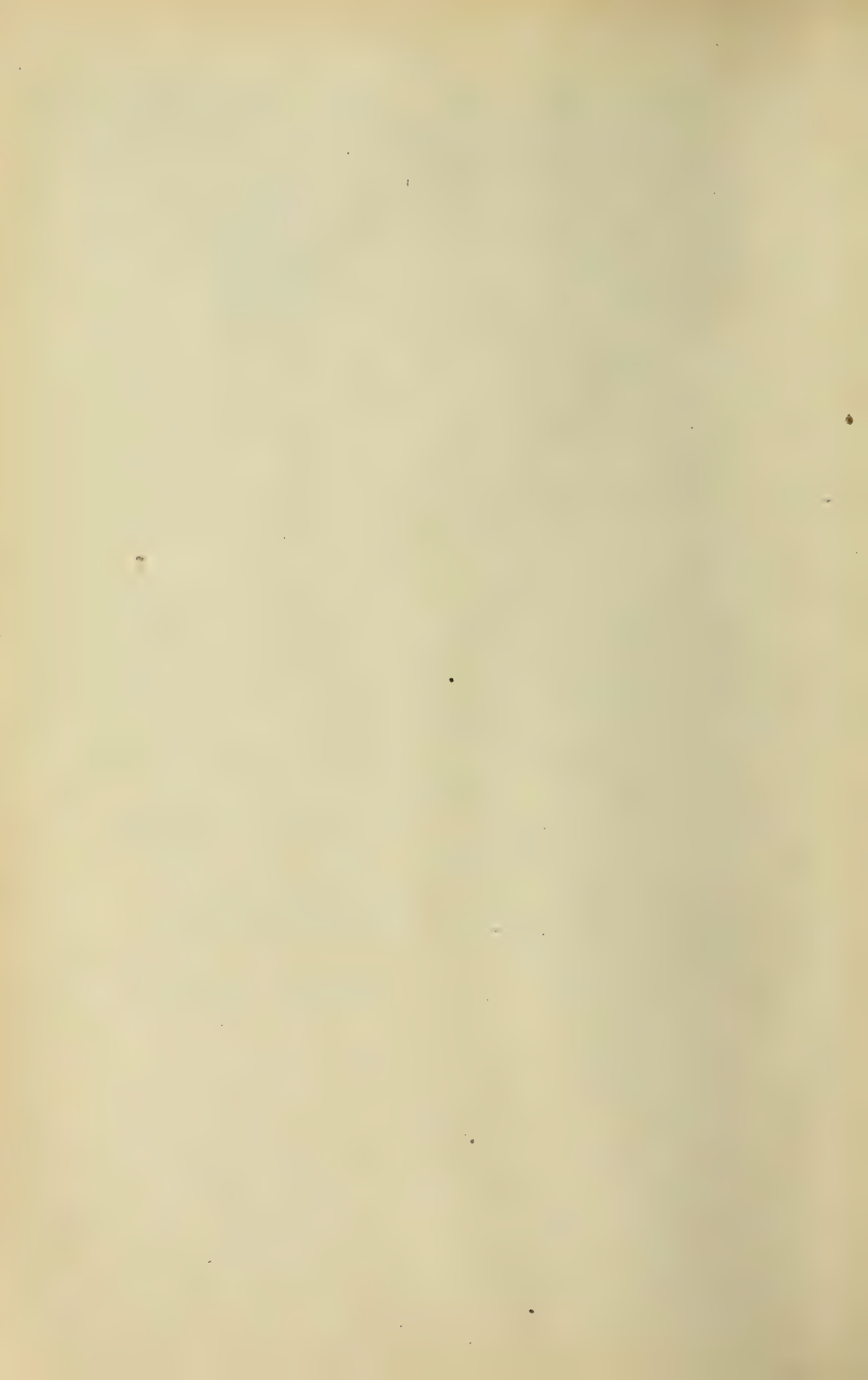
ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Russell, the Board then adjourned.

THOS. F. JUDGE,  
Clerk.







## PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

## SANITARY DISTRICT OF CHICAGO.

JANUARY 17, 18 AND 20, 1894.

## OFFICIAL RECORD.

(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)

## REGULAR MEETING.

The two hundred and fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, January 17, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8) members, were present.

## MINUTES.

The minutes of the regular meeting held January 10, 1894, and of the adjourned session of the same regular meet-

ing held January 13, 1894, were approved, as printed, on motion of Mr. Kelly, seconded by Mr. Russell.

## VOUCHERS.

The Clerk presented the following vouchers:

## ENGINEERING DEPARTMENT.

*Construction Account—*

McArthur Bros. (Sec. 2,	
Jan. 16, '94).....	\$ 8,446 20
Gilman & Co. (Sec. 3	
Jan. 16, '94).....	7,938 00
McArthur Bros. (Sec. 4,	
Jan. 16, '94).....	5,747 61
Agnew & Co. (Sec. 5,	
Jan. 16, '94).....	283 50
Agnew & Co. (Sec. 6,	
Jan. 16, '94).....	1,086 75
Agnew & Co. (Sec. 7,	
Jan. 16, '94).....	4,202 62
Agnew & Co. (Sec. 8,	
Jan. 16, '94).....	3,531 93
Agnew & Co. (Sec. 9,	
Jan. 16, '94).....	5,517 57



E. D. Smith & Co. (Sec. 10, Jan. 16, '94).....	\$13,759 37
Mason, Hoge & Co. (Sec. 11, Jan. 16, '94).....	4,368 65
Mason, Hoge & Co., (Sec. 12, Jan. 16, '94).....	1,248 19
Mason, Hoge & Co., (Sec. 13, Jan. 16, '94).....	4,186 00
McCormick Construction Co., (Sec. 14, Nov. 16, '93).....	9,581 25
McCormick Construction Co., (Sec. 14, final).....	59 37
Heldmaier & Neu, (Sec. A., Jan. 16, '94).....	1,504 91
E. D. Smith & Co. (Sec. D, Jan. 16, '94).....	2,415 76
E. D. Smith & Co. (Sec. 10, making Levee water tight, Jan. 16, '94).....	5,978 83
Atchison, Topeka and Santa Fe R. R. Co., (Sec. 10, extra work, Dec. 11, '93).....	19 88
Mason, Hoge & Co. (Sec. 11, making Levee water tight, Jan. 16, '94).....	4,759 04
Mason, Hoge & Co. (Sec. 12, making Levee water tight, Jan. 16, '94).....	1,861 03
	<u>\$86,496 46</u>

## CLERICAL DEPARTMENT.

P. F. Pettibone & Co., (stationery).....	8 25
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## LAW DEPARTMENT.

Elbert H. Gary, (legal services).....	\$235 00
S. A. Moffett Co. (livery).....	10 00
Wagner Bros. (livery).....	1 00
Orrin N. Carter, (expense).....	16 90
	<u>262 90</u>

## GENERAL ACCOUNT.

Marshall Field & Co., (window shades)....	3 89
---	------

## POLICE DEPARTMENT.

Edward Williams, (fr't on hay and oats).....	23 03
Grand total:.....	<u>\$86,794 53</u>

Mr. Eckhart, seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President de-

clared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 380, Engineering Department, (sundry supplies).....	\$ 374 30
No. 381, Engineering Department, (sundry supplies).....	365 60
No. 382, Engineering Department, (sundry supplies).....	423 16
No. 383, Engineering Department, (carpenter work in vault).....	25 00

Total.....\$1,188 06

Mr. Cooley, seconded by Mr. Kelly, moved that Requisitions Nos. 380 to 383, inclusive, for the Engineering Department, as read and shown above, be referred to the Committee on Engineering.

The motion prevailed unanimously, and Requisitions Nos. 380 to 383, inclusive, for the Engineering Department, as read and shown above, were so referred.

## FEDERAL CO-OPERATION IN DISTRICT WORK.

The President presented a message, with reference to Federal Co-operation in relation to the work of the District, transmitting letter from Congressman Durborow, with his reply thereto; and the message and enclosures were read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the message and enclosures be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

## THE MESSAGE, WITH ENCLOSURES:

“CHICAGO, January 17, 1894.

*To the Honorable Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith to your Honorable Body a communication received by me from Hon. Allen C. Durborow, Jr., Member of Congress from the Third District of Illinois, with reference to the co-operation of the Federal Government in relation to the work of this District. I also transmit herewith a copy of my reply to said communication, and recommend that the communication,

together with the reply, be spread on the minutes, and placed on file.

Respectfully submitted,

(Signed) FRANK WENTER,  
*President.*"

(Two (2) enclosures.)

"HOUSE OF REPRESENTATIVES, U. S., }  
WASHINGTON, D. C., Jan. 11, 1894. }

*Hon. Frank Wenter, President Board of  
Sanitary Trustees, Rialto Building  
Chicago, Ill.:*

DEAR SIR—The Committee on Rivers and Harbors of the House of Representatives have just issued an notice to the effect that they desire to complete their bill ready for presentation to the House by February 1st.

At a recent meeting of the Chicago Congressional Delegation, I called attention to the fact that some legislation would probably be asked or favored by your Board, and it was suggested that I write to you and say that the delegation would be glad to consider any proposition emanating from your Board relative to legislation on the part of the Federal Government in relation to your work. As you are doubtless aware, but one river and harbor bill is passed by each Congress, so that if you do not take up your matter shortly no action can be had during the ensuing two years, except by special enactment, which would be much more difficult to pass than to secure the same result in connection with the river and harbor bill.

I would therefore suggest that if your Board has any policy to present that you take up this matter at once, write me the result of your conference, which communication I will lay before our delegation at a future meeting, and if you desire a representative of your Board to have a hearing before the Committee on Rivers and Harbors, I will arrange for some date during the latter part of this month.

Asking for your early consideration of this matter, I am,

Respectfully yours,

(Signed) ALLEN C. DURBOROW, JR."

"CHICAGO, January 16, 1894.

*Hon. Allan C. Durborow, Jr., House  
of Representatives, Washington, D. C.:*

DEAR SIR—Your communication, dated January 11; is at hand. After a conference with the other Trustees of

this District, the conclusion was reached that inasmuch as the Sanitary District has not been able to mature any plans as to that end, from Bridgeport to the Lake, we cannot give you any definite plans, except to make this request of you and the entire Chicago delegation, i. e., that you have such improvements made in the Chicago River as will tend to help navigation.

The deepening and widening of the Chicago River at certain points will be a step forward to help us to get more water through the Chicago River to supply our channel, when completed. I have hopes that within the next three months the entire length of the Main Drainage Channel of the Sanitary District will be under construction. That once accomplished, the attention of the Board can then be diverted to the maturing of plans for such inlets as will give the District a sufficient volume to make up the 600,000 cubic feet per minute, as required by law.

In conclusion, let me say this: Obtain what appropriation you can for the improvement and deepening of the Chicago River, and, if practicable, for the taking out of some of the crooks and corners that are now more or less retarding navigation.

Any further information that may be desired on your part, or on the part of the other Congressmen, will be gladly given, if such is in our possession.

Hoping that yourself and the Chicago Congressmen will meet with success, and thanking you for your interest in the matter, I am,

Very truly yours,

(Signed) FRANK WENTER,  
*President of the Board of Trustees."*

#### WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District, for the week ending January 13, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Jan. 17, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report here-

with the number of employes in each department for the week ending January 13, 1894, as the same have been reported to me :

Engineering Department....(No report.)	
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	36
Total employes.....	49

Up to this writing no report has been received from the Engineering Department as to the force employed therein.

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

#### ANNUAL REPORT OF CLERICAL DEPARTMENT FOR 1893.

The Clerk presented the annual report of the Clerical Department, accompanied by four (4) tables, for the year ending December 31, 1893; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report, with enclosed tables, be ordered printed and referred to the Committee on Finance.

The motion prevailed unanimously, and the report and enclosures were ordered printed and so referred.

The following is

#### THE REPORT, WITH ACCOMPANYING TABLES:

"CHICAGO, Jan 17, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to herewith submit, in accordance with the rules of your Honorable Body, the annual report of this Department for the year ending December 31, 1893.

The balance of the first issue of two million (\$2,000,000) dollars of five (5) per cent bonds of the District, sold in 1892, were taken by the purchaser, yielding the District during the past year nine hundred and ninety thousand (\$990,000) dollars in principal and twenty-five thousand nine hundred and twenty and thirty-three one-hundredths (\$25,920.33) dollars, for the balance of the premium and accrued interest to the time of delivery.

Of this issue of bonds fifty thousand (\$50,000) dollars of the interest thereon

was paid in April, 1893, and fifty thousand (\$50,000) dollars more in November, 1893, making a total of interest paid of one hundred thousand (\$100,000) dollars.

There were also paid and canceled on November 1, 1893, one hundred (100) one thousand (\$1,000) dollar bonds of this issue, same being the first one-twentieth (1-20th) of this issue maturing.

On December 13, 1893, after due advertisement, the District opened bids for three million (\$3,000,000) dollars of five (5) per cent bonds of the District, being the second issue. Four (4) bids were received, all being above par, which, in view of the prevailing financial conditions, was a source of congratulation and of pride in the District's credit and financial standing.

The entire issue was sold to Messrs. N. W. Harris & Company, of Chicago, the highest bidders, whose premium bid was fifty-three thousand eight hundred and seventeen and seventy-five one hundredths (\$53,817.75) dollars, or a trifle over 101.793, over  $\frac{1}{4}$  per cent in excess of the highest bid received for the first issue. The first delivery of this issue was set for January 1, 1894, the interest being payable in July and January of each year.

The tax levy for 1892 was over one million two hundred thousand (\$1,200,000) dollars, and yielded to the District, net, one million one hundred and sixty-seven thousand ninety-seven and twenty-six one-hundredths (\$1,167,097.26) dollars. The tax levy of 1893 will, in all probability, yield the District a sum slightly in excess of that received last year, the exact figures not yet being obtainable.

During the past year fifty-one thousand six hundred and twenty-six and ninety-nine one-hundredths (\$51,626.99) dollars was received from depositories as interest on the balances of District funds, making a total received from this source to December 31, 1893, of eighty-three thousand eight hundred and ten and eighty-one one-hundredths (\$83,810.81) dollars.

The sum of two million ninety-seven thousand eight hundred and sixteen and forty-four one-hundredths (\$2,097,816.44) dollars was expended in actual construction during 1893, and the sum of one million two hundred and ninety-three thousand six hundred and eighty-seven and seventy-six one-hundredths (\$1,293,687.76) dollars for right of way lands, making a total expended to De-



ember 31, 1893, on these accounts respectively, of two million two hundred and forty-nine thousand one hundred and eighty-eight and forty-one one hundredths (\$2,249,188.41) dollars, and one million eight hundred and eighty-one thousand six hundred and fifty-nine and eighty-nine one-hundredths (\$1,881,659.89) dollars.

The total receipts of the District, from organization to December 31, 1893, have been five million three hundred and eighty-one thousand eight hundred and fifty-seven and seventy-eight one-hundredths (\$5,381,857.78) dollars, and the disbursements on all accounts have been five million one hundred and eighty-six thousand five hundred and four and eighty-three one-hundredths (\$5,186,504.83) dollars (of which three million eight hundred and eighty-eight thousand four hundred and twenty-seven and seventy-eight one-hundredths (\$3,888,427.78) dollars was expended in 1893), leaving a balance on hand December 31, 1893, of one hundred and ninety-five thousand three hundred and fifty-two and ninety-five one-hundredths (\$195,352.95) dollars.

I estimate the expenditures on account of the Clerical Department for the coming year will be under the sum of twelve thousand (\$12,000) dollars, and the General Account under the sum of sixty thousand (\$60,000) dollars.

In the tables attached hereto will be found an account by months and funds of the receipts and disbursements of the Sanitary District for the past year, and a summary of the same. There will also be found a summary of the total receipts and expenditures of the District by years and funds from February 1, 1890, to and including December 31, 1893.

I have to thank the members of the Board and the officers of the District for the many courtesies extended throughout the year, and to congratulate the Board on the successful outcome and substantial progress that the annual reports for 1893 show.

Respectfully submitted,

(Signed)

THOS. F. JUDGE,

*Clerk of Sanitary District of Chicago.*

## CLERK'S FINANCIAL STATEMENT.

## RECEIPTS AND EXPENDITURES—SANITARY DISTRICT OF CHICAGO, 1893.

*Receipts.*

Balance on hand January 1, 1893.....		\$1,844,085 76
Engineering Department (plans, etc.).....	\$ 1,284 74	
Tax account (taxes 1892).....	1,167,097 26	
Interest account (bank balances).....	51,626 99	
Bond account (sale of bonds).....	990,000 00	
Bond Interest and Premium account (sale of bonds).....	25,920 33	
Law Department, Land account (sale of buildings, etc.).....	2,445 65	
General account (rent, etc.).....	1,320 00	
Total.....		\$2,239,694 97
Grand total.....		\$4,083,780 73

*Expenditures.*

Engineering Department.....	\$ 154,631 54	
Engineering Department, Construction account.....	2,097,813 44	
Clerical Department.....	9,180 32	
Treasury Department.....	2,019 50	
Law Department.....	60,754 25	
Law Department, Land account.....	1,293,687 76	
General account.....	50,189 28	
Bond account.....	100,000 00	
Bond Interest and Premium account.....	100,000 00	
Police Department.....	20,148 71	
Total.....		\$3,888,427 78
Balance on hand December 31, 1893*.....		195,352 95
Grand total.....		\$4 083.780 73

## NOTE—

*There are outstanding warrants reported unpaid by the Treasurer to the amount of.....	\$ 31,977 62
Which added to the above balance of.....	195,352 95
Shows the Treasurer's balance of.....	\$227,330 57

There are also Emergency Funds in the hands of the following officers :

Clerk { Discharged Mens' Fund, Engineering Department.....	\$ 400 00
{ Special River Diversion Fund, Construction account.....	81,000 00
	\$81,400 00
Attorney, Emergency Fund, Law Department.....	3,000 00
Chief Engineer, Emergency Fund, Engineering Department.....	1,000 00
Total, Emergency Fund.....	\$85,400 00

RECEIPTS—SANITARY DISTRICT OF CHICAGO—JANUARY 1, 1893, TO DECEMBER 31, 1893.

MONTHS.	Engineer- ing Dept.	Tax Account.	Interest Account.	Bond Account.	Law Dept. Land Acct.	Bond Int. and Premi- um Acct.	General Account.	Totals.
January.....	.....	.....	\$4,889.12	\$490,000 00	\$150.00	\$11,371.53	.....	\$506,210.65
February.....	.....	\$ 46,000.00	4,888.03	250,000 00	.....	6,657.95	.....	308,095.98
March.....	.....	149,337.85	5,097.37	250,000 00	.....	7,890.85	\$750.00	412,382.94
April.....	.....	168,008.95	5,885.17	.....	56.87	.....	.....	173,484.12
May.....	\$ 92.00	150,000.00	5,697.38	.....	340.00	.....	.....	156,789.38
June.....	1,000.00	150,000.00	5,497.38	.....	.....	.....	150.00	157,257.38
July.....	9.39	150,000.00	5,371.98	.....	610.00	.....	.....	155,981.37
August.....	75.00	125,000.00	5,245.72	.....	600.00	.....	.....	130,321.72
September.....	.....	50,000.00	4,170.20	.....	188.78	.....	.....	54,358.98
October.....	25.00	100,000.00	3,042.72	.....	.....	.....	150.00	103,217.72
November.....	.....	.....	1,723.92	.....	500.00	.....	.....	1,723.92
December.....	83.35	78,750.46	817.00	.....	.....	.....	270.00	80,420.81
Totals.....	\$1,284.74	\$1,167,097.26	\$51,626.99	\$990,000 00	\$2,445.65	\$25,920.33	\$1,320.00	\$2,239,694.97

EXPENDITURES—SANITARY DISTRICT OF CHICAGO—JANUARY 1, 1893, TO DECEMBER 31, 1893.

MONTHS.	Engineer- ing Dept.	Eng. Dept. Construct'n Account.	Clerical Dept.	Treasury Dept.	Law Dept.	Law Dept. Land Acct.	General Account.	Bond Account.	Bond Int. and Premi- um Acct.	Police Dept.	Totals.
January.....	\$13,462.29	\$ 37,562.47	\$641.98	\$166.67	\$ 4,610.41	\$ 6,019.30	\$4,762.34	.....	.....	.....	\$ 67,225.46
February.....	13,068.75	43,446.73	710.45	166.67	8,096.87	4,436.75	4,127.03	.....	.....	.....	74,053.25
March.....	12,735.63	35,791.47	791.08	170.01	10,316.68	162,749.50	2,707.22	.....	.....	.....	225,261.59
April.....	8,854.85	42,952.31	662.63	166.66	6,875.15	175,524.90	5,446.39	.....	\$50,000 00	.....	289,482.89
May.....	11,289.96	58,742.25	643.78	166.67	4,326.96	47,142.25	2,926.78	.....	.....	.....	125,218.65
June.....	11,094.11	85,584.79	744.64	166.67	6,234.11	81,289.12	3,016.80	.....	.....	.....	188,280.24
July.....	11,742.27	134,578.92	820.83	166.67	4,106.44	117,139.65	5,340.56	.....	.....	.....	273,496.34
August.....	11,828.25	200,427.08	769.07	166.66	5,087.33	67,900.00	2,793.69	.....	.....	\$ 683.28	289,655.36
September.....	12,252.08	303,069.44	810.99	166.67	2,526.62	339,744.29	4,017.89	.....	.....	6,447.20	668,965.18
October.....	15,900.64	514,229.47	831.36	166.67	4,271.22	44,312.00	6,050.36	.....	.....	5,213.12	590,474.84
November.....	16,140.02	354,184.39	896.16	166.66	2,612.64	96,308.00	4,784.95	.....	.....	3,431.64	628,524.46
December.....	16,282.69	287,117.12	857.35	182.82	2,539.82	151,222.00	4,215.25	.....	\$50,000.00	4,373.47	466,790.52
Totals.....	\$154,631.54	\$2,097,816.44	\$9,180.32	\$2,019.50	\$60,754.25	\$1,293,687.76	\$50,189.26	\$100,000 00	\$100,000 00	\$20,148.71	\$3,888,427.78





## ANNUAL REPORT OF TREASURY DEPARTMENT FOR 1893.

The Clerk presented the annual report of the Treasury Department, accompanied by three (3) tables and six (6) certificates, for the year ending December 31, 1893; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report with enclosed tables and certificates be ordered printed and referred to the Committee on Finance.

The motion prevailed unanimously, and the report and enclosures were ordered printed and so referred.

The following is

THE REPORT, WITH ACCOMPANYING  
TABLES AND CERTIFICATES:

“CHICAGO, Jan. 17, 1894.

*To the Honorable, the Board of Trustees,  
of the Sanitary District of Chicago:*

GENTLEMEN—I herewith submit, in

accordance with the rule of your Honorable Body, the annual report of this Department for the year ending December 31, 1893.

The tabulated statement following shows the receipts and disbursements of your Treasurer's office during the year 1893, and a balance on hand, at the close, of two hundred and twenty-seven thousand three hundred and thirty and fifty-seven one-hundredths (\$227,330.57) dollars.

Respectfully submitted,

(Signed)

MELVILLE E. STONE,

*Treasurer of the Sanitary District of Chicago.”*





DISBURSEMENTS—SANITARY DISTRICT OF CHICAGO—JANUARY 1, 1893, TO DECEMBER 31, 1893.

[illegible]

## SUMMARY.

## SANITARY DISTRICT OF CHICAGO—RECEIPTS AND DISBURSEMENTS, 1893.

*Receipts.*

Balance on hand January 1, 1893.....	\$1,855,759 44
Bond account (including premium and accrued interest).....	\$1,015,920 33
Tax account.....	1,167,097 26
Law Department, Land account.....	2,445 65
Engineering Department.....	1,284 74
General account.....	1,320 00
Interest account (int. on monthly bank balances)	51,626 99
Total.....	\$2,239,694 97
Grand total.....	<u>\$4,095,454 41</u>

*Disbursements.*

Clerical Department.....	\$ 9,177 32
Treasury Department.....	2,019 50
Engineering Department.....	152,906 39
Engineering Department, Construction account	2,097,949 41
Law Department.....	60,978 25
Law Department, Land account.....	1,275,135 76
General account.....	51,119 17
Police Department.....	18,838 04
Bond account (bonds and interest matured)....	200,000 00
Total.....	\$3,868,123 84
Balance on hand December 31, 1893.....	227,330 57
Grand total.....	<u>\$4,095,454 41</u>

The balance of \$227,330.57 on hand December 31, 1893, is distributed among six banks, and a certificate from each, certifying the amount on deposit in each bank at the close of the year, is hereto attached and made a part of this report.

Respectfully submitted,

(Signed)

MELVILLE E. STONE,  
*Treasurer.*"

(Certificates.)

"CHICAGO, Jan. 16, 1894.

To Melville E. Stone, Treasurer of the  
Sanitary District of Chicago:

I hereby certify that the balance on deposit in the Fort Dearborn National Bank, to the credit of the Sanitary District of Chicago, at the close of banking hours, Saturday, December 30, 1893, was \$56,122.08.

(Signed) CHARLES H. McGRATH,  
*Asst. Cashier.*"

"CHICAGO, Jan. 16, 1894.

To Melville E. Stone, Treasurer of the  
Sanitary District of Chicago:

I hereby certify that the balance on deposit in the National Bank of Illinois,

to the credit of the Sanitary District of Chicago, at the close of banking hours, Saturday, December 30, 1893, was \$56,962.61.

(Signed) CARL MOLL,  
*Cashier.*"

"CHICAGO, Jan. 16, 1894.

To Melville E. Stone, Treasurer of the  
Sanitary District of Chicago:

I hereby certify that the balance on deposit in the Chicago National Bank, to the credit of the Sanitary District of Chicago, at the close of banking hours, Saturday, December 30, 1893, was \$30,638.08, thirty thousand six hundred and thirty-eight and 8-100 dollars.

(Signed) CHICAGO NATIONAL BANK,  
By F. M. BLOUNT,  
*Cashier.*"

"CHICAGO, Jan. 16, 1894.

*To Melville E. Stone, Treasurer of the  
Sanitary District of Chicago:*

I hereby certify that the balance on deposit in the "Metropolitan National Bank, to the credit of the Sanitary District of Chicago, at the close of banking hours, Saturday, December 30, 1893, was \$33,859.95, say thirty-three thousand eight hundred fifty-nine and 95-100 dollars.

(Signed) H. H. HITCHCOCK,  
Asst. Cashier."

"CHICAGO, Jan. 16, 1894.

*To Melville E. Stone, Treasurer of the  
Sanitary District of Chicago:*

I hereby certify that the balance on deposit in the American Trust and Savings Bank, to the credit of the Sanitary District of Chicago, at the close of banking hours, Saturday, December 30, 1893, was \$21,003.79.

THE AMERICAN TRUST & SAVINGS BANK.

(Signed) By J. R. CHAPMAN,  
Cashier."

"CHICAGO, Jan. 16, 1894.

*To Melville E. Stone, Treasurer of the  
Sanitary District of Chicago:*

I hereby certify that the balance on deposit in the Globe National Bank, to the credit of the Sanitary District of Chicago, at the close of banking hours, Saturday, December 30, 1893, was \$28,744.06.

(Signed) GLOBE NATIONAL BANK,  
Chicago, Illinois.

By D. A. MOULTON,  
Second Vice President."

MONTHLY REPORT FROM ENGINEERING  
DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of December, 1893.

The same was read, and, by unanimous consent, was ordered printed and, with

accompanying classified statement, placed on file.

The following is

THE REPORT :

"CHICAGO, Jan. 15, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the reports of Divisions 1, 2 and 3, showing the detailed operations of the Engineering Department for the month of December, including table giving the rate of progress on the several contracts; also a classified statement of expenses in the usual form.

Expenses for the month of December were as follows :

Contractors estimates.....	\$151,179.50
River Diversion estimates....	38,895.41
Pay rolls.....	12,354.54
Material, etc.....	53,946.77

Total.....\$256,376.22

I estimate the expenses for January will be \$300,000.00, including contractors' estimates.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

"CHICAGO, Jan. 10, 1893.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—In submitting a report of the work done on the Main Channel during the month of December, I beg to state that in most of the earth sections, the large falling off in quantities excavated, as compared with the preceding month, is mostly due to the cold weather during the early part of the month, which practically suspended operations with scrapers and wheelbarrows; the same condition during the shortest days, and the holiday season, has also tended to diminish production.

The following table shows the amount of work done on each section during the month of December, the amount required by the contract, the deficiency and also the percentage rate of progress—100 per cent. being the required rate:



SECTIONS.	Amo't Done During December.	Average Monthly Requirement.	Deficiency for December.	Excess Over Monthly Requirement.	Per Cent. of Average Requirement.
F.....	\$ 2,592 07	\$ 10,681 81	\$ 8,089 14	.....	24
E.....	4,318 87	14,929 00	10,610 13	.....	29
D.....	6,493 31	15,286 51	8,793 20	.....	42
C.....	1,812 55	13,352 40	11,539 85	.....	13
B.....	.....	11,775 18	11,775 18	.....	.....
A.....	2,123 23	24,488 17	22,364 94	.....	08
1.....	942 03	21,435 18	20,493 15	.....	04
2.....	17,800 00	18,552 56	752 56	.....	96
3.....	11,872 00	28,251 42	16,379 42	.....	42
4.....	21,119 00	19,647 28	.....	\$ 1,471 72	107
5.....	2,648 00	13,202 26	10,556 26	.....	20
6.....	2,619 00	14,743 47	12,124 47	.....	18
7.....	6,991 00	17,405 63	10,414 63	.....	40
8.....	7,923 50	21,295 08	13,371 58	.....	37
9.....	6,880 20	19,232 36	12,402 16	.....	35
10.....	25,500 00	22,572 29	.....	3,027 71	113
11.....	14,185 75	19,493 74	5,307 99	.....	72
12.....	14,344 25	19,172 88	4,828 63	.....	74
13.....	14,053 00	18,588 65	4,535 65	.....	75
14.....	.....	19,891 82	19,891 82	{ (Forfeited and work sus- pended.)	.....

NOTE—Of the above sections, work was practically suspended on Sections 2, 3 and 4 about June 1, 1893, and the contractors thereon were notified formally to discontinue all work on the 2nd of August following.

Section 3 was re-let to Gilman & Co. on November 1, 1893, under a new progress rating of 28 months, and supplemental contracts were made on same date with the original contractors on Sections 2 and 4 under the old rating of 41 months, which requires them to catch up within a reasonable time.

I also submit herewith a Progress Chart showing the relative standing of all the sections up to the 1st inst., on which the black shading shows the amount done up to December 1st, and the "hatched" shading represents the quantities excavated during the past month.

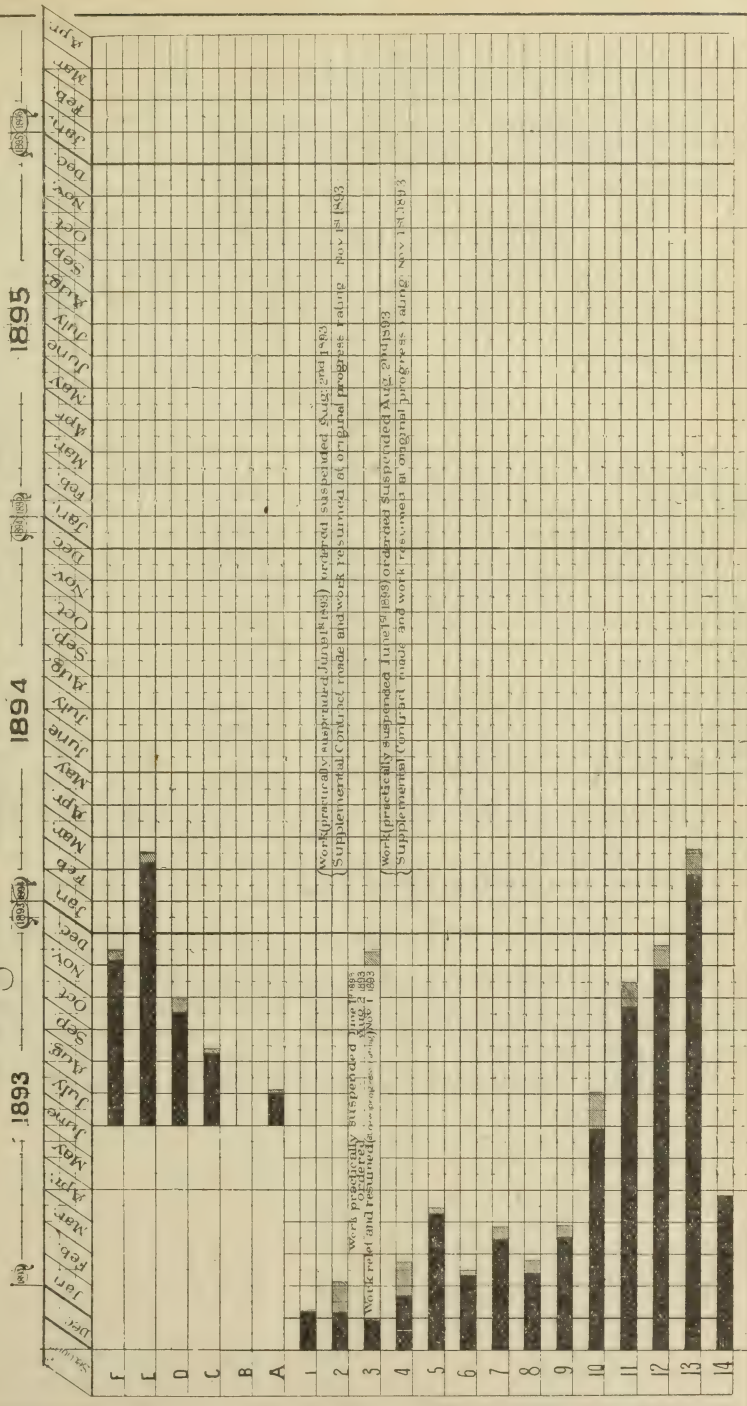
Respectfully submitted,

(Signed)

U. W. WESTON,

*Supt. of Construction."*

# Progress Chart of Main Channel



Black shows work; white shows work resumed or suspended.

"CHICAGO, Jan. 10, 1894.

Mr. Isham Randolph, Chief Engineer:

DEAR SIR—I transmit herewith report for December, 1893:

Pay rolls.....	\$ 6,813 93
Pay rolls, repair of tow-path.....	140 75
Contractor's estimates.....	147,960 20
Total.....	<u>\$154,914 88</u>

## CONDITION OF WORK, JANUARY 1, 1894.

Sections.	CONTRACTORS.	Total amount done January 1, 1894.	Total amount required to be done January 1, 1894.	Amount behind January 1, 1894.	Amount ahead January 1, 1894.	Average monthly progress called for in contracts.	Amount of work done during December, 1893.
F	Ricker, Lee & Co.....	\$90,023.90	\$ 69,147.48		\$20,876.42	\$ 11,524.58	\$ 2,881.82
E	Streeter & Kenefick.....	150,012.77	93,226.32		56,786.45	15,537.72	4,318.87
D	E. D. Smith & Co.....	60,096.93	91,719.06	\$ 31,622.13		15,286.61	6,493.31
C	West'n. Dred'g. & Imp. Co.....	70,115.78	87,273.90	17,158.12		14,545.65	1,812.56
B	Heldmaier & Neu.....	55,249.02	80,477.94	25,228.92		13,412.99	324.00
A	Heldmaier & Neu.....	60,970.39	154,019.52	93,049.13		25,669.92	2,735.73
1	Alfred Harlev.....	28,406.16	193,264.92	164,858.76		21,473.88	942.03
2	McArthur Bros.....	47,688.00	69,768.50	22,080.50		26,890.25	17,800.00
3	Gilman & Co.....	31,665.70	76,171.00	44,505.30		28,188.65	11,872.00
4	McArthur Bros.....	54,662.00	68,620.02	13,958.02		28,343.01	21,119.00
5	Agnew & Co.....	59,049.00	151,825.99	92,776.99		13,202.26	2,646.00
6	Agnew & Co.....	66,960.00	179,392.87	112,432.87		15,599.38	6,156.00
7	Agnew & Co.....	122,297.00	215,938.26	93,641.26		18,777.24	6,991.00
8	Agnew & Co.....	144,348.75	304,738.46	160,389.71		23,441.42	7,998.25
9	Agnew & Co.....	97,269.40	257,839.27	160,569.87		19,833.79	6,830.20
10	E. D. Smith & Co.....	232,445.00	307,845.59	75,400.59		23,680.43	25,500.00
11	Mason, Hoge & Co.....	234,708.97	257,498.02	22,789.05		19,807.54	14,185.75
12	Mason, Hoge & Co.....	242,710.00	249,247.44	6,537.44		19,172.88	14,344.25
13	Mason, Hoge & Co.....	290,191.72	241,652.45		48,539.27	18,588.65	14,053.00
14	McCormick Cons'n. Co..	95,705.85	258,593.66	162,887.81		19,891.82	67.85
	Totals.....	\$2,234,576.34	\$3,408,260.67	\$1,299,886.47	\$ 126,202.14	\$ 392,868.57	\$ 169,071.63

Total amount required to be done January 1, 1894..\$ 3,408,260 67

Total amount done January 1, 1894..... 2,234,576 24

Amount short as per contracts.....\$ 1,173.684 33

*Note*—In addition to the above amounts done January 1, 1894, there has been material excavated at various points by labor employed by the Sanitary District, and on contractors' force account, which material, if rated at the regular contract prices would reduce the shortage as follows:

Sections 1, 2, 3, 4, 5, 11 and 12 River Diversion, as per previous statement.....\$115,421 85



## FORCE REPORT—DAILY AVERAGE, DECEMBER, 1893.

SECTION.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Channe- lers.	Air Com- pressors.	Canilever Derricks.	Steam Derrick.	Locomo- tives.	Cars.	Dredges.	Pile Drivers.
A.....	62	4	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B.....	52	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
C.....	55	2	1.4	2	.....	.....	.....	.....	.....	.....	3	.....	.....	.....
D.....	91	1	2	1.9	.....	.....	.....	.....	.....	.....	4	31	.....	4
E.....	124	3	3.4	4	.....	.....	.....	.....	.....	.....	6	44	.....	.....
F.....	64	2	2	3.1	.....	.....	.....	.....	.....	.....	3	19	.....	.....
1.....	32	5	1.8	2	.....	9	.....	.....	.....	.....	.....	.....	.....	.....
2.....	231	13	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3.....	207	32	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4.....	301	28	.....	2.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5.....	92	49	1.4	3.5	.....	.....	.....	.....	.....	7	1	.....	5	.....
6.....	82	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7.....	104	6	.....	2.5	1.9	.....	2.6	.....	.....	7	.....	.....	.....	.....
8.....	129	8	.....	6	4.5	2	2.6	.....	.....	.....	.....	18	.....	.....
9.....	133	2	.....	3	3.6	1.1	2	.....	.....	4	.....	18	.....	.....
10.....	344	3	.....	4	11.7	2.7	6.4	1.1	2.5	.....	.....	38	.....	.....
11.....	114	4	.....	7.4	.....	3	.....	.....	.....	.....	.....	.....	.....	.....
12.....	96	2	.....	4.8	.....	2.7	.....	.....	.....	.....	.....	.....	.....	.....
13.....	128	4	.....	6.8	.....	5.0	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	2441	184	12.0	32.4	40.7	6.7	24.3	1.1	2.5	1.8	17	177	.5	.4

Respectfully submitted,

(Signed)

D. C. DUNLAP,

Assistant Superintendent of Construction."

"CHICAGO, Jan. 5, 1894.

Mr. Isham Randolph, Chief Engineer:

DEAR SIR—The work of Division 2 for the month of December, 1893, was as follows:

The construction of the spillway above Summit was completed, with the exception of the surfacing of the concrete work and the pointing of the masonry. On account of freezing weather, the work of surfacing and pointing has been postponed until spring.

The excavation of the surplus material east and west of the spillway was continued and almost completed. The levee north of the spillway was joined to the latter and widened and strengthened for its entire length. The levee south of the spillway was joined to the latter and finished. The widening and strengthening of the levee from the spillway to the Santa Fe R. R. track was undertaken and is nearly finished.

Continued the cross-sectioning of the territory along the line of the River Diversion Channel. The work is now completed from the head of Goose Lake to a point about one-half mile above Mt. Forest.

An examination was made of the left bank of the Illinois and Michigan Canal and the Desplaines River from the E., J. & E. crossing to McDonough street, Joliet. The party engaged on the River Diversion Channel survey was transferred to Joliet and commenced a detailed survey of the above territory. The survey is almost completed to Dam No. 1.

An examination of Griffin & Connelly's, Piper's and Swift's R. R. bridges over the I. & M. Canal was made.

The new bridge and approaches in Section 10 for the Western Stone Co. were completed and opened for traffic.

The Stephens street bridge at Lemont, across the new River Diversion Channel, and the approaches thereto, were completed.

The maintenance and records of water gauges were continued.

The reduction of notes pertaining to Illinois River floods was continued.

The expense for January will approximate to that of December.

Very respectfully,

(Signed.)

THOS. T. JOHNSTON,

First Assistant Chief Engineer."

"CHICAGO, Jan. 9, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of December, 1893.

Finished the platting and coloring of the districts on the sewerage map of Chicago and vicinity, and the platting of topography on sheet 24 of the 100 feet scale contour maps.

Completed a map and tracing of Tract 171, showing lands condemned by the Sanitary District and railroads in the Wilshire estate.

Made tracings of contour sheet 24, the progress profile of the Main Channel and River Diversion, and right of way tracts 125, 126, 127, 128, 132 and 152.

Made a map showing property owners on the Ogden Ditch, from the Western Indiana railroad to Western avenue.

Commenced a plat of parts of Sections 25 and 36, T. 39 N., R. 13 E., showing the location of West and South Park boulevards, with reference to the Main Channel.

Began work on a map for the County Clerk's office of the acquired lands of the Sanitary District.

Finished for the records copies of various contracts between Bridgeport and Lockport and the map marked "2 a" from Willow Springs to Lockport.

Made estimates of the spillway at Summit and calculations for the regulating works on the Main Channel at Lockport.

Continued work on contour sheet 8 a, the second and third parts of the contour map, Lake Michigan to Joliet, and the Sanitary District map.

During next month it is proposed to continue the work now on hand. The expenses for January will be the same as for last month.

Yours respectfully,

(Signed) EDGAR WILLIAMS,

*Second Assistant Chief Engineer."*

(Enclosing classified statement.)

#### REPORT ON IMPROVEMENT OF TOW-PATH.

The Clerk presented a report from the Chief Engineer, transmitting letters from the Superintendent of Construction and the Marshal, with reference to the work of widening and improving the tow-path of the Illinois and Michigan Canal for

use of the District; and the report and enclosures were read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report and enclosures be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the report and enclosures were ordered printed and so referred.

The following is

THE REPORT, WITH ENCLOSURES:

"CHICAGO, Jan. 12, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit communication of Edward Williams, Marshal, referred to me by U. W. Weston, Superintendent of Construction. I consider the suggestion and advice offered by Mr. Williams to be entirely proper, and would recommend such action by your Honorable Board as would insure the carrying out of the same.

Owing to the fact that this highway will be continually under the observation of the Marshal, I am of the opinion that the work had better be left in his charge, as it would then be likely to receive more prompt attention than if in the hands of the engineering or construction departments.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Two (2) enclosures.)

(Enclosures.)

"CHICAGO, January 8, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith enclose a communication from Marshal Edward Williams, reporting upon the work done on the tow-path road in accordance with your instructions of September 9, and also making recommendations in connection with its maintenance and extension in which I fully concur.

Yours truly,

(Signed) U. W. WESTON,  
*Supt. of Construction."*

"CHICAGO, January 8, 1894.

*U. W. Weston, Esq., Supt. of Construction, Sanitary District of Chicago:*

DEAR SIR—September 9, 1893, I re-

ceived a communication from you forwarding a copy of an order passed by the Honorable, the Board of Trustees of the District, authorizing the widening and improvement of the tow-path of the Illinois and Michigan Canal, that the same might be used as a road-way for District purposes and requesting me to take charge of the work. In accordance with this request I employed Mr. John Grady as Roadmaster, and a considerable force of men; and with this force improved and made comfortable and safe for traffic the said tow-path from Summit to Romeo at a cost of about \$1,500, which work was accomplished prior to November 15th last. Since that time I have kept Grady and from one to three men, as circumstances required and weather permitted, widening narrow places, improving and keeping clear culverts, removing obstructions and keeping the road in general repair.

The necessity of this road-way is so well established and so generally recognized that further comment upon it at this time is uncalled for; but the extension and maintenance of the road are unsettled problems, which I deem it my duty to call your attention to. The five sections, for which contracts have just been closed between Summit and Chicago, are through a wide track of level land practically without drainage, through which no established well-made road passes. The only way possible to reach any part of this right of way is along the line of the old canal, either inside or outside of the spoil-bank, preferably the outside on account of drainage, or it may be found advisable, on inspection, to level the top of the spoil-bank, and use that for the road-way.

There are no bridges over which a team can pass between Kedzie avenue and Summit, and this fact makes the building of the road for that entire distance an absolute necessity. As you are aware, the material from Kedzie avenue to a point three miles below Summit is so soft that it renders the maintenance of a good roadway expensive, for the reason that the contractors are constantly engaged in heavy teaming, conveying supplies, machinery, etc., which cuts deep ruts in which mud pools are formed and destruction to the road ensues. To remedy this constant attention must be given that necessary repairs may be promptly made.

In view of the foregoing, I would most respectfully recommend that the position of Roadmaster be made permanent at a salary of \$60 per month. That he be re-

quired to furnish a horse, for which the District shall allow him \$1.00 per day. That the District furnish him a suitable light dump cart or wagon and harness and that other labor be employed as circumstances and conditions may require. That the Roadmaster be under the jurisdiction and direction of the Superintendent of Construction or his Assistant or the Marshal of the District, as you may think best.

I further recommend that inasmuch as the road benefits the contractors as much as any one else, that they be requested and required by the officer having the road in charge to from time to time furnish the necessary teams and men required to improve the road or repair serious damage thereto, opposite their respective sections, without cost to the District other than the supervision of the work. This seems to me to be equitable and I do not believe that the suggestion will meet with serious opposition from the contractors. At all events, I know it can be accomplished, and thus assure a good road at a nominal cost to the District.

Most respectfully submitted,  
(Signed) EDWARD WILLIAMS,  
*Marshal."*

#### PROTECTION OF DISTRICT PROPERTY FROM - FIRE.

The Clerk presented a report from the Chief Engineer, making recommendations with reference to the protection of notes and other District property from damage by fire; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

#### THE REPORT:

"CHICAGO, Jan. 17, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I wish to call your attention to the fact that much valuable matter in the shape of notes, calculations and other data pertaining to the Engineering and Construction Department is necessarily in the hands of the Division Engineers of the various Divisions, and this valuable property, which it has cost the District much time



and money to acquire, is not secure against the risk of fire. I would recommend that fire proof safes of sufficient capacity to contain the most important of these documents be provided for each Division, so that in the event of fire the District would be protected from the loss which would be very material to its interests.

Respectfully submitted,

(Signed.)                      ISHAM RANDOLPH,  
*Chief Engineer."*

#### PURCHASE OF "TULLY" LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering with reference to the purchase from Thomas Tully of certain right of way lands in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Thomas Tully, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Thomas Tully, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, Jan. 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with Thomas Tully for the purchase from him for the corporate purposes of this District of the land hereinafter described, including buildings, sheds, railroad iron, ties and lumber on said land, for the sum of twenty-two

thousand two hundred and forty-six (\$22,246.00) dollars.

Your Committee recommends that the Clerk of this District be directed to pay, on the voucher of the Attorney, to said Thomas Tully the sum of twenty-two thousand two hundred and forty-six (\$22,246.00) dollars, in full payment for the following described land, to-wit:

That part of the west half (W.  $\frac{1}{2}$ ) of the southeast quarter (S. E.  $\frac{1}{4}$ ) of Section thirty-five (35), Township thirty-nine (39) North, Range thirteen (13), East of the Third Principal Meridian, lying south (S.) of the north (N.) two hundred and sixty four and sixty one-hundredths (264.60) feet thereof and north (N.) of the right of way of the Atchison, Topeka & Santa Fe Railroad Company in Chicago; said land lying and being situate in the County of Cook, State of Illinois; and also in full payment for the buildings, sheds, railroad iron, ties and lumber on said land.

Respectfully submitted,

(Signed)                      B. A. ECKHART,\*  
*Chairman.*

L. E. COOLEY.

W. H. RUSSELL,

THOMAS KELLY,

JOHN J. ALTPETER,

*Joint Committee on Finance and Engineering."*

#### CARE OF SMALL-POX PATIENTS.

Mr. Gilmore, Chairman, presented a report from the Committee on Health and Public Order, with reference to arrangements made with the City of Chicago for the care of cases of small-pox that might be found on the works of the District; and the report was read.

Mr. Gilmore, seconded by Mr. Russell, moved that the report be adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

The following is

THE REPORT :

"CHICAGO, January 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Health and Public Order respectfully report that in view of the danger arising from cases of small-pox on the works of the District, and the discovery of an isolated case, and the necessity for the proper care and separation from the men on the work of any other cases that might be found, the Chairman of your committee called on the Mayor of Chicago, together with City Health Commissioner Reynolds, and made arrangements by which the City agrees to take care of all cases of small-pox at the City's Hospital, brought to it by officers of the District, at the rate of fifteen (\$15) dollars per week.

Your Committee consider this offer an advantageous one, as does also the Sanitary Inspector, and they respectfully recommend that the Board authorize the Sanitary Inspector to accept the proposed agreement with the City for the care of small-pox cases.

Respectfully submitted,

(Signed.) A. P. GILMORE,  
*Chairman.*

JOHN J. ALTPETER,

RICHARD PRENDERGAST,

*Committee on Health and Public Order."*

FINAL REPORT OF COMMITTEE ON LABOR ON SPECIAL RIVER DIVERSION WORK.

Mr. Kelly, Chairman, presented a final report from the Special Committee on Labor, transmitting a statement from the Chief Engineer, with reference to the number of men, hours and total amount paid on the Special River Diversion Work on Sections 1, 2, 4, 5 and 11; and the report and enclosures were read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report and enclosure be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

Mr. Kelly, seconded by Mr. Eckhart, then moved that the Special Committee on Labor, having made its final report, be discharged.

The motion prevailed unanimously, and the President declared the Special Committee on Labor discharged.

The following is

THE REPORT, WITH ENCLOSURE:

"CHICAGO, January 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Special Committee on Labor, appointed at the meeting held August 23, 1893, (page 1414 of the Proceedings) present herewith for information a statement of the number of men, the number of hours and total amount paid on the special River Diversion work on Sections 1, 2, 4, 5 and 11, as prepared by the Chief Engineer.

Respectfully submitted,

(Signed) THOMAS KELLY,  
*Chairman.*

B. A. ECKHART,

L. E. COOLEY,

JOHN J. ALTPETER,

RICHARD PRENDERGAST,

*Special Committee on Labor.'*

(Enclosure.)

"APPROXIMATE ESTIMATE OF THE NUMBER OF MEN, THE NUMBER OF HOURS AND TOTAL AMOUNT PAID ON SPECIAL RIVER DIVERSION WORK.

*Section 1.*

9,411 men employed 41,272 65-100 days.....\$109,428.66  
556 teams 4,583 days..... 15,865.58  
Probable number 4,706 men, averaging 17½ days each.

*Section 2.*

4,123 men employed 23,917 days..\$ 47,567.92  
152 teams employed 1,342 days.... 5,301.35  
Probable number 2,062 men, averaging 23 days each.

*Section 4.*

6,283 men employed 36,276 7-10 days.....\$ 59,010.69  
149 teams employed 1,404 6-10 hours. .... 5,576.90  
Probable number 3,142 men, averaging 23 days each.

*Section 5.*

946 men employed 4,270 3-10 days\$ 67,126.74  
8 teams employed 18½ days..... 74.00  
Probable number 473 men, averaging 18 days each.

## Section 11.

1,017 men employed 5,698 6-10  
 days.....\$ 8,913.20  
 119 teams employed 747½ days.. 2,616.15  
 Probable number 508 men, aver-  
 aging 22½ days each.

The total number of men employed might be averaged as follows:

10,383 men, averaging 21 days each.

The number of men employed, as shown by the books, is 21,780, employed 111,435¼ days, and the number of teams 984, employed 8,045 6-10 days.

Contracts were signed August 30, 1893. Work commenced two days later."

## ADJOURNMENT TO SPECIAL TIME.

Mr. Eckhart, seconded by Mr. Russell, moved that when the Board adjourn, it do adjourn to meet Thursday, January 18, 1894, at 3 o'clock P. M.

The motion prevailed unanimously, and it was so ordered.

## PLANS AND SPECIFICATIONS BETWEEN CORWITH AND ROBEY STREET TO BE PREPARED.

Mr. Kelly presented an order, directing the Chief Engineer to prepare plans and specifications for the Main Channel between Corwith and Robey street, as provided in the order, and present same to the Board as soon as possible; and the order was read.

Mr. Kelly, seconded by Mr. Eckhart, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Chief Engineer directed to prepare plans and specifications for the Main Channel between Corwith and Robey street, as provided in the order.

The following is

## THE ORDER:

"Ordered, That the Chief Engineer be instructed to prepare plans and specifications for the work on the Main Drainage Channel, between Corwith and Robey street, and report the same to the Board as soon as possible."

## ADJOURNMENT.

On motion of Mr. Eckhart, seconded

by Mr. Kelly, the Board then adjourned to meet Thursday, January 18, 1894, at 3 o'clock P. M., pursuant to motion.

THOS. F. JUDGE,  
 Clerk.

## ADJOURNED MEETING.

The first adjourned session of the two hundred and fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Thursday, January 18, 1894, at 3 o'clock P. M., pursuant to motion.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6) members, were present.

## OFFICIAL HISTORY OF DISTRICT TO BE PRINTED.

Mr. Eckhart presented an order, authorizing and directing the Special Committee on Ceremonies to have printed and bound the official history of the Sanitary District already prepared, as provided in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Russell, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Eckhart, Kelly, Russell and Wenter—five (5). Excused and not voting—Mr. Cooley—one (1). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Special Committee on Ceremonies authorized and directed to have printed and bound the official history of the District already prepared, as provided in the order.

The following is

## THE ORDER:

"Ordered, That the Special Committee on Ceremonies be and they are hereby authorized and instructed to have printed and bound one thousand (1,000) copies of the Official History of the Sanitary District, already prepared under the direction of said Committee, in pursuance of an order passed at the meeting held November 16th, 1892 (page 882 of the Proceedings), the expense of such publication not to exceed the sum of nine hundred (\$900.00) dollars."

## RECESS.

At 3:05 o'clock P. M., Mr. Eckhart,



seconded by Mr. Kelly, moved that the Board take a recess for ten minutes.

The motion prevailed unanimously, and it was so ordered.

On reassembling at the close of the recess at 3:15 o'clock P. M., on roll-call Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6) members, were present.

ASSIGNMENT BY AGNEW & COMPANY OF CONTRACTS ON SECTIONS 5, 8 AND 9.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, transmitting four (4) agreements with stipulations, and one (1) indemnifying bond, all with reference to the assignment by Agnew & Company of contracts for Sections 5, 8 and 9 of the Main Channel to The Qualey Construction Company; Mason, Hoge, King & Company, and Halvorsen, Richards & Company, respectively; and the report and enclosures were read.

Mr. Cooley, seconded by Mr. Kelly, moved that the report be adopted, with enclosures, ordered printed, and placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, and with enclosures, ordered printed and placed on file, and the recommendations made in the report concurred in.

The following is

THE REPORT, WITH ACCOMPANYING AGREEMENTS AND BOND:

“CHICAGO, January 18, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On December 27, 1893, (page 1651 of the Proceedings), the Board, on the recommendation of this Committee, ordered that notice of intention to forfeit Contract Sections one (1), five (5), six (6), seven (7), eight (8) and nine (9) be served on the contractors for said Sections.

On January 10, 1894 (page 1672 of the Proceedings), the Committee was instructed “to consider any necessary changes and stipulations” in reference to the above

Sections. The Committee, in conjunction with the Chief Engineer and Attorney, have had under advisement the entire subject matter in regard to the Sections upon which forfeiture is pending, and report progress as follows:

Agnew & Company have requested permission to assign Sections five (5), eight (8) and nine (9), without conditions as to Section six (6) and seven (7), or as to any extra claims, leaving these matters for future consideration, and without prejudice to either party, the assignees for said Sections to be The Qualey Construction Company for Section five (5), Mason, Hoge, King & Company for Section eight (8) and Halvorsen, Richards & Company for Section nine (9).

The Committee has fully considered the responsibility and competence of the proposed assignees, and has also considered the state of the work on said sections and the requirements of the levee adjacent to the River Diversion, and it appears to the Committee that the assignment of these sections to the parties named is desirable for several reasons.

1. The assignees are in position to immediately continue the work, and to prosecute the same diligently, so that a high rate of progress under the contracts may be realized. This will save at least three months of time, and should the work ultimately fall into the hands of parties who would have to furnish new equipment, the delays would be much greater.

2. It makes it practicable to put the sections in the best defensible condition against the bad weather usually prevailing in the spring and early summer.

3. It settles many serious legal complications and much hardship in regard to liabilities for labor and material, matters that would be the subject of much vexation, if not of actual embarrassment and delay.

4. It will furnish employment almost immediately for about one thousand additional men.

The Committee concludes that the special agreement of July 5, 1893 (page 1335 of the Proceedings), should be considered as part of the contract for the several sections, so far as the same may be applicable in each case, and that a stipulation should be made in regard to completing the levees

on Sections five (5) and eight (8). The Attorney has incorporated these conditions in the assignments.

The Committee submits herewith the following documents: Forms of assignment by Agnew & Company and acceptance on the part of the District and by the assignee for Contract Sections five (5), eight (8) and nine (9).

Form of an indemnifying bond from Agnew & Co., conditioned on the payment of all indebtedness on the above sections incurred prior to the assignment of these contracts.

An agreement with Agnew & Company, providing for an off set, should the District allow certain extra claims.

We recommend that said documents be approved and that said approval take effect when they are properly executed, and that the President and Clerk be directed to execute the same when the several bonds shall have been approved by the Board.

Respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*  
B. A. ECKHART,  
THOMAS KELLY,  
W. H. RUSSELL,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

The following are

THE AGREEMENTS:

"Know all men by these presents, That we, Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., in consideration of the sum of one (\$1) dollar to us in hand paid and of other good and valuable considerations, do hereby sell, assign, transfer and convey to The Qualey Construction Company, a corporation organized under the laws of the State of Illinois, all our right, title and interest in and to a contract entered into by us with the Sanitary District of Chicago, and dated the eighteenth (18th) day of July, A. D., 1892, for the complete exca-

vation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section five (5), together with the building of all collateral works which by the terms of said contract are included in the same, and do also hereby sell, assign, transfer and convey to said The Qualey Construction Company all our right, title and interest in and to any moneys now due or that may hereafter become due and payable under the terms and conditions of said contract, except, however, any claims we may have under said contract for extra work, which are hereby expressly reserved from this assignment.

*In witness whereof*, we have hereunto set our hands and seals this.....day of.....A. D., 1894.

.....[SEAL]

.....[SEAL]

.....[SEAL]

.....[SEAL]

"The Sanitary District of Chicago hereby consents to the assignment by Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., to The Qualey Construction Company, of their contract with the Sanitary District of Chicago, dated the eighteenth (18th) day of July, A. D., 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section five (5), together with the building of all collateral works which by the terms of said contract are included in the same, on the condition that said The Qualey Construction Company do furnish a bond, with good and sufficient sureties thereon, in the sum of one hundred thousand (\$100,000.00) dollars, conditioned for the faithful performance of said contract in accordance with its terms and conditions, and on the further condition that said The Qualey Construction Company assumes and carries out the obligations of the agreement between said Agnew & Co. and said Sanitary District of Chicago, dated July 5, 1893, and printed in the Proceedings of the Board of Trustees of said



Sanitary District, on page 1335 thereof, so far as same relates to said Section five (5).

*In witness whereof*, Said Sanitary District of Chicago has caused these presents to be signed by its President and attested by its Clerk and its corporate seal to be hereto affixed this seventeenth (17th) day of January, A. D., 1894.

.....  
President.

Attest:

.....  
Clerk."

— — —  
"The undersigned, The Qualey Construction Company, a corporation organized under the laws of the State of Illinois, in consideration of the assignment to it by Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., of all their right, title and interest in and to their contract with the Sanitary District of Chicago, dated the eighteenth (18th) day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago, known as Section five (5), together with the building of all collateral works which by the terms of said contract are included in the same, and in and to any moneys due or that may hereafter become due thereunder, and the consent of said Sanitary District of Chicago thereto, does hereby on its part covenant and agree with said Sanitary District of Chicago, faithfully to carry out and perform all the terms and conditions of said contract as set forth in the same.

It further agrees to furnish a bond in the sum of one hundred thousand (\$100,000.00) dollars, with sureties satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of said contract, and agrees that the obligations of the agreement between said Agnew & Co., and said Sanitary District of Chicago, dated July 5, 1893, and printed in the Proceedings of the Board of Trustees of said Sanitary District, on page 1335 thereof, shall be binding upon it, and it does hereby covenant and agree to carry out said agreement, so far as same relates to said Section five (5), and to make that portion of the

levee therein provided for, which is located on the upper or east end of said Section five (5), conform in grade, dimensions and slopes to the remainder of said levee, and will complete same at once under the direction of the Chief Engineer.

It also agrees to pay the laborers employed by it at regular intervals and at least twice each month, and not to pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States.

*In witness whereof*, Said The Qualey Construction Company, has caused these presents to be signed by its President and Secretary, thereunto duly authorized, and its corporate seal to be hereto affixed this seventeenth (17th) day of January, A. D. 1894.

.....  
By .....

*Its President.*

.....  
*Its Secretary."*

— — —  
"Know all men by these presents, That we, Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., in consideration of the sum of one (\$1) dollar, to us in hand paid, and of other good and valuable considerations, do hereby sell, assign, transfer and convey to Horatio P. Mason, Charles E. Hoge, John King and Harry B. Hanger, co-partners, doing business under the firm name and style of Mason, Hoge, King & Co., all our right, title and interest in and to a contract entered into by us with the Sanitary District of Chicago, and dated the eighteenth (18th) day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago, known as Section eight (8), together with the building of all collateral works which by the terms of said contract are included in the same, and do also hereby sell, assign, transfer and convey to said Mason, Hoge, King & Co. all our right, title and interest in and to any moneys now due or that may hereafter become due and payable under the terms and conditions of said con-



tract, except, however, any claims we may have under said contract for extra work, which are hereby expressly reserved from this assignment.

*In witness whereof*, We have hereunto set our hands and seals this.....day of....., A. D. 1894.

.....[SEAL]

.....[SEAL]

.....[SEAL]"

"The Sanitary District of Chicago hereby consents to the assignment by Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., to Horatio P. Mason, Charles E. Hoge, John King and Harry B. Hanger, co-partners, doing business under the firm name and style of Mason, Hoge, King & Co., of their contract with the Sanitary District of Chicago, dated the eighteenth (18th) day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago, known as Section eight (8), together with the building of all collateral works which by the terms of said contract are included in the same, on condition that said Mason, Hoge, King & Co., do furnish a bond, with good and sufficient sureties thereon, in the sum of one hundred thousand (\$100,000.00) dollars, conditioned for the faithful performance of said contract in accordance with its terms and conditions, and on the further condition that said Mason, Hoge, King & Co. assume and carry out the obligations of the agreement between said Agnew & Co. and said Sanitary District of Chicago, dated July 5, 1893, and printed in the Proceedings of the Board of Trustees of said Sanitary District on page 1335 thereof, so far as same relates to said Section eight (8).

*In witness whereof*, Said Sanitary District of Chicago has caused these presents to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed this ..... day of....., A. D. 1894.

.....  
President.

Attest:

.....  
Clerk."

We, the undersigned, Horatio P. Mason, Charles E. Hoge, John King and Harry B. Hanger, co-partners, doing business under the firm name and style of Mason, Hoge, King & Co., in consideration of the assignment to us by Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., of all their right, title and interest in and to their contract with the Sanitary District of Chicago, dated the eighteenth (18th) day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other materials from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section eight (8), together with the building of all collateral works which by the terms of said contract are included in the same, and in any moneys due or that may hereafter become due thereunder, and the consent of said Sanitary District of Chicago thereto, do hereby on our part covenant and agree with said Sanitary District of Chicago faithfully to carry out and perform all the terms and conditions of said contract as set forth in the same.

We further agree to furnish a bond in the sum of one hundred thousand (\$100,000.00) dollars, with sureties satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of said contract, and that the obligations of the agreement between said Agnew & Co. and said Sanitary District of Chicago, dated July 5, 1893, and printed in the Proceedings of the Board of Trustees of said Sanitary District, on page 1335 thereof, shall be binding upon us, and we hereby covenant and agree faithfully to carry out said agreement so far as same relates to said Section eight (8), and will at once complete the earth core in same under the direction of the Chief Engineer.

We also agree to pay the laborers employed by us at regular intervals and at least twice each month, and not to pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States.

*In witness whereof*, We have hereunto

set our hands and seals this.....day  
of.....A. D. 1894.  
.....[SEAL]  
.....[SEAL]  
.....[SEAL]  
.....[SEAL]”

“*Know all men by these presents*, That we, Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., in consideration of the sum of one (\$1) dollar to us in hand paid, and of other good and valuable considerations, do hereby sell, assign, transfer and convey to Halvur K. Halvorson, Charles H. Richards and William Lundeen, co-partners, doing business under the firm name and style of Halvorson, Richards & Co., all our right, title and interest in and to a contract entered into by us with the Sanitary District of Chicago, and dated the fifteenth (15th) day of July, A. D., 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section nine (9), together with the building of all collateral works, which by the terms of said contract are included in the same, and do also hereby sell, assign, transfer and convey to said Halvorson, Richards & Co. all our right, title and interest in and to any moneys now due or that may hereafter become due and payable under the terms and conditions of said contract, except, however, any claims we may have under said contract for extra work, which are hereby expressly reserved from this assignment.

*In witness whereof*, We have hereunto set our hands and seals this seventeenth (17th) day of January, A. D., 1894.

.....[SEAL]  
.....[SEAL]  
.....[SEAL]”

“The Sanitary District of Chicago hereby consents to the assignment by Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., to Halvur K. Halvorson, Charles H. Richards

and William Lundeen, co-partners, doing business under the firm name and style of Halverson, Richards & Co., of their contract with said Sanitary District of Chicago, dated the fifteenth (15th) day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section nine (9), together with the building of all collateral works which by the terms of said contract are included in the same, on condition that said Halverson, Richards & Co. do furnish a bond, with good and sufficient sureties thereon, in the sum of one hundred thousand (\$100,000.00) dollars, conditioned for the faithful performance of said contract in accordance with its terms and conditions, and on the further condition that said Halverson, Richards & Co. assumes and carries out the obligations of the agreement between said Agnew & Co. and said Sanitary District of Chicago, dated July 5, 1893, and printed in the Proceedings of the Board of Trustees of said Sanitary District, on page 1335 thereof, so far as same relates to said Section nine (9).

*In witness whereof*, Said Sanitary District of Chicago has caused these presents to be signed by its President and attested by its Clerk and its corporate seal to be hereto affixed this seventeenth (17th) day of January, A. D. 1894.

.....  
.....  
President.  
Attest:  
.....  
Clerk.”

“We, the undersigned, Halvur K. Halvorson, Charles H. Richards and William Lundeen, co-partners, doing business under the firm name and style of Halvorson, Richards & Co., in consideration of the assignment to us by Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., of all their right, title and interest in and to their contract with the Sanitary District of Chicago, dated the fifteenth (15th) day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main



Drainage Channel of said Sanitary District of Chicago known as Section nine (9), together with the building of all collateral works which by the terms of said contract are included in the same, and in and to any moneys due or that may hereafter become due thereunder, and the consent of said Sanitary District of Chicago thereto, do hereby on our part covenant and agree with said Sanitary District of Chicago faithfully to carry out and perform all the terms and conditions of said contract as set forth in the same.

We further agree to furnish a bond in the sum of one hundred thousand (\$100,000.00) dollars, with sureties satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of said contract, and that the obligations of the agreement between said Agnew & Co. and said Sanitary District of Chicago, dated July 5, 1893, and printed in the Proceedings of the Board of Trustees of said Sanitary District, on page 1335 thereof, shall be binding upon us, and we hereby covenant and agree faithfully to carry out said agreement so far as same relates to said Section nine (9).

We also agree to pay the laborers employed by us at regular intervals and at least twice each month, and not to pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States.

In witness whereof, We have hereunto set our hands and seals this seventeenth (17th) day of January, A. D. 1894.

.....[SEAL]  
.....[SEAL]  
.....[SEAL]”

“WHEREAS, In the assignment by us of even date herewith to Mason, Hoge, King & Co., of all our right title and interest in and to a contract with the Sanitary District of Chicago, dated July 18, 1892, for excavation upon Section eight (8) of said District, and to moneys due or to become due thereunder, we reserved from said assignment any claims we might have against said Sanitary District for extra work heretofore done on said Section; and

WHEREAS, At the time of making said

assignment there had been withheld from the estimates allowed by the Chief Engineer for work done by us on the River Diversion, excavation which, at the prices fixed in said contract, would aggregate the sum of five hundred and forty-two and sixty-eight one-hundredth (\$542.68) dollars, on the ground that certain work upon the levee adjoining said River Diversion had not been done, and that said work was included under the terms of our contract, while we have claimed and do claim that the same is extra work;

Now therefore, In consideration of the consent of said Sanitary District of Chicago to the assignment by us as aforesaid to said Mason, Hoge, King & Co. of said contract, we do hereby covenant and agree that in the adjustment of any claim made by us for extra work on said section, whether by means of a suit at law or otherwise, we will allow to said Sanitary District a deduction or set-off to the amount of said sum of \$542.68 from the amount, if any, awarded us by judgment or otherwise on account of any such claim for extra work.

In witness whereof, We have hereunto set our hands and seals this.....day of.....A. D. 1894.

.....[SEAL]  
.....[SEAL]  
.....[SEAL]”

The following is

THE INDEMNIFYING BOND:

“Know all men by these presents, That we, Francis Agnew, John P. Agnew and John McGillen, as principals, and .....

..... as sureties, of the County of Cook and State of Illinois, are held and firmly bound unto the Sanitary District of Chicago in the sum of thirty-five thousand (\$35,000) dollars, good and lawful money of the United States of America, to be paid to the said Sanitary District of Chicago, or to its successors or assigns; for which payment, well and truly to be made, we bind ourselves and our heirs, executors, and administrators, jointly and severally, firmly by these presents.

Sealed with our seals, and dated this eighteenth day of January, in the year of



our Lord one thousand eight hundred and ninety-four.

The condition of this obligation is such, that if the above bounden Francis Agnew, John P. Agnew and John McGillen do pay and fully discharge all and every indebtedness incurred by them in and about the work of excavating that portion of the Main Drainage Channel of said Sanitary District known as Sections five (5), eight (8) and nine (9), and do protect, defend and save harmless the said Sanitary District of Chicago from any and all claims of whatsoever nature arising out of injuries to employes or laborers on said sections, and from any and all claims for damage for any cause by reason of the work carried on upon said sections prior to the date hereof, then this obligation to be void; otherwise to remain in full force and virtue.

.....[SEAL]

.....[SEAL]

.....[SEAL]"

Sealed and delivered in the presence of:

#### ADJOURNMENT TO SPECIAL TIME.

Mr. Eckhart, seconded by Mr. Kelly, moved that when the Board adjourn it do adjourn to meet Saturday, January 20, 1894, at 2 o'clock p. m.

The motion prevailed unanimously and it was so ordered.

#### ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Kelly, the Board then adjourned to meet Saturday, January 20, 1894, at 2 o'clock p. m., pursuant to motion.

THOS. F. JUDGE,  
*Clerk.*

#### ADJOURNED MEETING.

The second adjourned session of the two hundred and fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Saturday, January 20, 1894, at 2 o'clock P. M., pursuant to motion.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Kelly, Russell and Wenter—six (6) members, were present.

#### COMPLETION OF NEW BONDS ON ASSIGNED SECTIONS 5 AND 8.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, transmitting completed bonds of the Qualey Construction Company, on Section 5, and Mason, Hoge, King & Co., on Section 8, the same being the contracts assigned by Agnew & Company, and also indemnity bond of Agnew & Company against all indebtedness on Sections 5, 8 and 9 prior to the assignment; and stating that the assignments of Sections 5 and 8 heretofore transmitted has been properly executed, and recommending that the accompanying bonds be approved and the President and Clerk authorized and directed to execute said assignments for Sections 5 and 8, on behalf of the District, as provided in the report; and the report was read.

Mr. Cooley, seconded by Mr. Russell, moved that the report be adopted, ordered printed and with enclosed bonds placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the assignments for Sections 5 and 8, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosed bond, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the assignments for Sections 5 and 8, on behalf of the District, as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, Jan. 20, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance transmit herewith, the bond of The Qualey Construction Company, assignee, for Contract Section five (5), in the sum of one hundred thousand (\$100,000.00) dollars, and the bond of Mason, Hoge, King & Co., assignee, for Contract Section eight (8), for the same amount. Both bonds are signed by sureties satisfactory to the Committee. We also transmit a bond of Agnew & Co. for thirty-five thousand

(\$35,000.00) dollars, conditioned on the payment of all indebtedness on Contract Sections five (5), eight (8) and nine (9) prior to the assignment of the contracts for these sections. The assignments for said Sections five (5) and eight (8) heretofore transmitted to the Board, have been properly executed by the assignors and assignees.

These bonds complete the assignment and the stipulations relating thereto, as recommended by this Committee and approved by the Board at the meeting of January 18th, except as to Contract Section nine (9), the bond for which the Committee expects to submit at the next regular meeting.

The Committee recommend that the bonds as submitted herewith be approved and that the President and Clerk execute the assignments for Contract Sec-

tions five (5) and eight (8) as heretofore directed by the Board.

Respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*  
W. H. RUSSELL,  
JOHN J. ALTPETER,  
THOMAS KELLY,  
WM. BOLDENWECK,

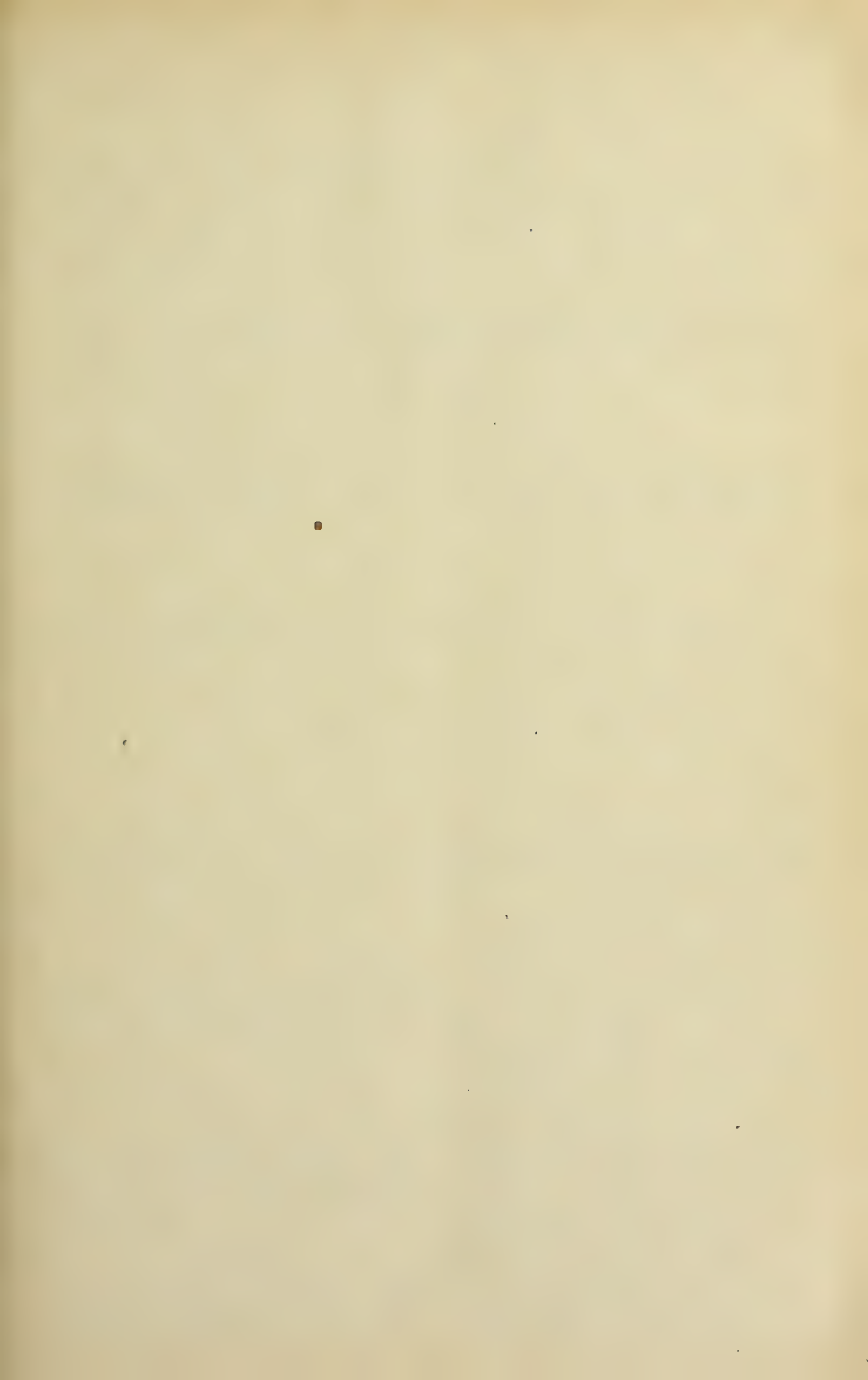
*Joint Committee on Engineering and Finance."*

(Enclosing three (3) completed bonds.)

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Russell, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*







# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

JANUARY 24, 1894.

#### OFFICIAL RECORD.

*Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and sixth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, January 24, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7), and subsequently Messrs. Gilmore and Prendergast—two (2), making a total of nine (9) members, were present.

#### MINUTES.

The minutes of the regular meeting held January 17, 1894, and of the adjourned sessions of the same regular meet-

ing, held January 18 and 20, 1894, were approved as printed, on motion of Mr. Boldenweck, seconded by Mr. Russell.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### *Construction Account—*

McArthur Bros. Co., (approach to spillway, final).....	\$5,119 85
P. F. Pettibone & Co., (printing).....	\$20 75
Donahue & Henneberry, (printing postal cards).....	54 75
F. Mayer & Co. (blue prints).....	25 59
Alex. J. W. Copelin, (photographs).....	132 00
M. G. Paterson, (typewriting).....	2 10
R. W. Goodwillie Box Co., (pine stakes)...	3 00
Seelig & Kandler, (repairing transit).....	1 75

John T. Allison, (rent, Summit).....	20 00
Riverside Hotel, (livery).....	10 00
Wagner Bros. (livery).....	13 50
Chicago Towel Supply Co. (toweling).....	5 40
Trevor Spring Water Co. (ice).....	9 00
U. W. Weston, (traveling).....	35 50
D. C. Dunlap, (traveling).....	48 01
E. R. Shnable, (traveling).....	8 49
H. B. Alexander, (traveling).....	12 10
Chas. L. Harrison, (traveling).....	8 85
Ebin J. Ward, (traveling).....	7 48
F. G. Ewald, (traveling).....	17 86
Alex. E. Kastl, (emergency).....	31 71
Alex. E. Kastl, (emergency).....	34 86
A. C. Schrader, (emergency).....	33 50
	<hr/> \$ 536 20

## CLERICAL DEPARTMENT.

Jacobs, Coles & Co., (printing) .....	\$ 6 50
---------------------------------------	---------

## LAW DEPARTMENT.

P. F. Pettibone & Co., (stationery).....	\$ 10 00
Orrin N. Carter, (expense).....	16 11
	<hr/> \$ 26 11

## GENERAL ACCOUNT.

Chicago Edison Co., (electric lighting)...	\$ 68 50
Chicago Edison Co., (new lights).....	10 00
Sharp & Smith, (vacuine points).....	72 00
The Economist Pub. Co., (advvtg. bonds)...	9 00
Geo. P. Brown, (compiling history, final).....	100 00
Orrin N. Carter (Dr. Re's bill).....	343 00
	<hr/> \$ 602 50

## POLICE DEPARTMENT.

J. J. Badenoch Co., (oats and hay).....	\$ 493 58
Grand total.....	<hr/> \$ 6,784 74

Mr. Kelly, seconded by Mr. Eckhart, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley,

Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 472, Law Department, (stationery).....	\$39 60
No. 1055, Clerical Department, (stationery).....	6 85
Total.....	<hr/> \$46 45

Mr. Kelly, seconded by Mr. Eckhart, moved that Requisitions No. 472, for the Law Department, No. 1055, for the Clerical Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 472, for the Law Department, and No. 1055, for the Clerical Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District, for the week ending January 20, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, Jan. 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending January 20, 1894, as the same have been reported to me :

Engineering Department.....	113
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	36

Total employes..... 162

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”



REPORT ON COMPLETION OF DELIVERY OF  
\$3,000,000 OF BONDS.

The Clerk presented a report, accompanied by fourteen (14) enclosures, with reference to the completion of the delivery of the issue of \$3,000,000 of five per cent bonds of the District, sold on December 15, 1893, and with reference to the return of the checks deposited on December 13, 1893, with the bids for said bonds; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be ordered printed, and, with enclosures, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT:

“CHICAGO, Jan. 24, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN:—With reference to the sale to Messrs. N. W. Harris & Co. of the issue of \$3,000,000 of five per cent bonds of the District on December 15, 1893, and the amount deposited by said firm with their bid, \$91,620, I have the honor to report that on notice from the Treasurer of the payment and delivery of portions of said issue I returned to the said firm the proportionate amount of the whole deposit represented by the proportion of the bonds so paid for by and delivered to said firm, as follows:

January 3, 1894.....	\$60,000
January 3, 1894.....	10,140
January 19, 1894.....	1,500
January 22, 1894.....	18,360
Total.....	<u>\$90,000</u>

In addition to the check for \$1,620, returned on December 15, 1893, under order of the Board, making a total of \$91,620 deposited by said N. W. Harris & Co.

I have also returned to Messrs. Greenebaum Sons, Blair & Company, and the First National Bank of Chicago, the checks deposited by each of said firms on December 13, 1893, with their bids for said issue of bonds, and their receipts for said checks are hereto attached.

The Treasurer has reported to me that during the month of January, 1894, the total issue of 3,000 bonds, Nos. 2001 to

5000, were paid for and delivered to said firm.

Respectfully submitted,

Signed) THOS. F. JUDGE,

*Clerk.”*

(Fourteen enclosures.)

RETURN OF CLERK'S EMERGENCY FUND  
FOR SPECIAL RIVER DIVERSION WORK.

The Clerk presented a report, accompanied by check for eighty thousand (\$80,000) dollars, with reference to the various amounts, aggregating \$80,000, placed in his hands on September 19, and October 4, 1893, for use as an emergency fund, for the payment of laborers and employes on the special River Diversion and levee work during September, October and November, 1893; and the report was read.

Mr. Eckhart, seconded by Mr. Russell, moved that the report be ordered printed and placed on file, the recommendations made therein concurred in, and the enclosed check (\$80,000) ordered deposited with the Treasurer of the District to the credit of the District and the Engineering Department Construction Account thereof.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, the recommendations made therein concurred in, and the enclosed check (\$80,000) ordered deposited with the Treasurer of the District to the credit of the District and the Engineering Department Construction Account thereof.

The following is

THE REPORT:

“CHICAGO, Jan. 24, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—At the meeting held September 19, 1893, (page 1459 of the Proceedings) and that held October 4, 1893, (pages 1497 and 1498 of the Proceedings) I was authorized by your Honorable Board to draw Warrants for \$16,000, \$48,000 and \$16,000—a total of \$80,000—for use as an emergency fund, for the payment of laborers and employes working upon the special river diversion and levee work in progress during the months of September, October and November, 1893.

The money as above stated was duly drawn, and, upon various orders of the Board, I advanced to the various contractors moneys for the prompt payment of the laborers and employes on the special work aforesaid, being reimbursed by the contractors on the payment to them of the regular estimates, until at the present time I have in my hands the entire \$80,000. The money advanced for the payment of employes of the McCormick Construction Company, on Section 14, on order of the Board of November 17, 1893, has just been repaid to me by P. J. Sexton, Receiver.

As the necessity for this fund has now apparently ceased, I return herewith check on the Globe National Bank, payable to the order of Melville E. Stone, Treasurer, in the sum of \$80,000, and recommend that the same be covered into the treasury to the credit of the District and the Engineering Department Construction Account, against which account the money was originally charged. All of which is

Respectfully submitted,

(Signed) THOS. F JUDGE,

*Clerk.*

(Accompanied by check for \$80,000.)

PERMISSION TO WASTE MATERIAL ON SECTION D.

The Clerk presented a report from the Chief Engineer, transmitting a request from E. D. Smith & Company, contractors on Section D, asking permission to waste material on the east side of the Main Channel on Section D; and the report and enclosure were read.

Mr. Boldenweck, seconded by Mr. Alt-peter, moved that the report and enclosure be ordered printed and referred to the Committee on Engineering.

The motion prevailed unanimously, and the report and enclosure were ordered printed and so referred.

The following is

THE REPORT, WITH ENCLOSURE:

"CHICAGO, Jan. 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith a request of E. D. Smith & Co. for permission to waste material on the east of the Main Channel on their Section D. I see no objection to this being done under the direction of this Department and would urge that permission be given them, as

it will facilitate the work and aid the contractors in bringing up their quantities.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Enclosure.)

"ROMEVILLE, WILL CO., ILL., }  
January 22, 1894. }

*Isham Randolph, Esq., Chief Engineer,  
Sanitary District.*

DEAR SIR—We wish to put a large number of teams at work on Section D, taking off the top lift and putting it on the east side of Main Canal. Will you please give us your permission to do so?

We should like to put these teams at work this week if possible.

Yours respectfully,

(Signed) E. D. SMITH & Co."

ANNUAL REPORT OF LAW DEPARTMENT FOR 1893.

The Clerk presented the Annual Report of the Law Department for the year ending December 31, 1893.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Jan. 22, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In accordance with the rules of the Board, I beg leave to submit the annual report of the Law Department for the fiscal year ending December 31, 1893.

It was stated in the last annual report that the Department would be engaged during the year almost exclusively in obtaining the right of way, but matters have constantly arisen in connection with the actual construction of the Main Channel which required immediate attention, so that much more of the work of the Department has been turned in that direction than was anticipated. The settlement of the questions thus arising and the large amount of extra work required of the contractors by the District during the past six months have rendered necessary the drawing of many special agreements. The handling of laqor tickets and paying for the same in



connection with running labor trains from the first of September until the last of November consumed much time. The number of tickets and amount paid for them is as follows:

	No. Tickets.	Prices.
Tickets used on Alton Railroad.....	94,144	\$ 7,531 52
Tickets used on Santa Fe Railroad.....	69,806	5,584 48
Total tickets used.....	163,950	\$13,116 00

The establishing of a Police Department and the legal questions in connection therewith have taken the time of one of my assistants at least six months of the year. The adoption of the Illinois and Michigan Canal as a location for the Main Channel between Summit and Chicago and the discussion of the questions which arose out of such adoption demanded my attention almost exclusively for several weeks as well as a large amount of time by the General Counsel. Disputes over the payment of laborers and other claims have been very frequent, and have taken up much time.

Eight condemnation suits have been commenced in court during the past year—six of them being in Cook county and one each in the counties of Will and Du Page. One condemnation suit has been tried in Will county and one in this county. By far the larger part of the money paid out for land during the year has been paid on settlements without contest in court, but in almost every instance the condition of the title has necessitated the drawing of a number of papers and the taking of an agreed verdict in order to give the District satisfactory title.

Suits have been commenced in the United States courts to settle certain disputes on the work of Contract Sections eight (8) and fourteen (14), in both of which suits it devolved upon this department to look after the interests of the District. The crossing of the Santa Fe railroad right of way at Lemont required the bringing of a suit. After lengthy preparation and much preliminary work in court a compromise was reached giving the District the right to construct the River Diversion across the right of way of the railroad, leaving the final settlement with the company for future adjustment.

A classified statement of the lands obtained by the District in the year 1893 showing whether obtained by purchase or condemnation and the price paid with a recapitulation showing total number of

acres now owned by the District and the amount paid for the same is as follows:

*Lands Acquired in 1893.*

*Will County:*

	Acres.	Amount.
By condemnation..	1.07	\$ 900.00
By purchase.....	90.67	9,411.09
	91.74	\$10,311.09

*DuPage County:*

By purchase.....	175.05	\$13,742.91
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*Cook County:*

By condemnation ..	733.76	\$ 219,630.60
By purchase.....	1,384.06	1,049,673.16
	2,118.89	\$1,269,303.76

*Total Lands Acquired in 1893.*

By condemnation..	734.83	\$ 220,530.60
By purchase.....	1,649.78	1,072,827.16
	2,384.61	\$1,293,357.76

*Recapitulation.*

Showing total amount paid and acreage acquired to date:

	Acres.	Amount.
Total acquired in 1892.....	3,547.93	\$ 588,012.13
Total acquired in 1893.....	2,384 61	1,293 357.76
Total acreage acquired.....	5,932 54	\$1,881,369.89

Less sundry credits from sale of buildings and machinery on right of way, unearned insurance premiums returned, taxes refunded, etc. 3,332.15

Making a net total to date

of.....\$1,878,037.74

NOTE—Of the above 734.83 acres condemned in 1893, 7.22 acres were not finally settled for till after the close of the year the agreed verdict for which was \$11,522.00.

The Departmental expenditures for the year are as follows:

*Salaries.*

Attorneys.....	\$ 17,470.80
Right of way.....	3,344.16
Office force.....	2,990.16
	\$23,805.12



*General Expenses.*

Right of way.....\$	9,690.52
Court costs.....	8,482.73
Legal services.....	16,080.69
Printing and stationery.....	340.56
Furniture.....	127.00
Sundries.....	365.12
	<hr/> \$ 35,086.62

*Land Account.*

Right of way.....\$	1,290,864.94
Abstract of title, (Will Co.).....	600.00
Taxes.....	1,892.82
	<hr/> \$1,293,357.76
Total.....	<hr/> \$1,352,199.50

The ordinary current expenses for the year 1894 are estimated at sixty thousand (\$60,000 00) dollars. Until the plans of the District are more fully developed the expenditures for lands for right of way are so uncertain as not to justify an estimate.

This department will be engaged the present year to a much greater extent than formerly in connection with the actual construction work of the District, though a considerable time will be required in procuring additional right of way.

Respectfully submitted,

Signed) ORRIN N. CARTER,  
*Attorney."*

## COMPLETION OF NEW BOND ON ASSIGNED SECTION 9.

Mr. Eckhart, for the Joint Committee on Engineering and Finance, presented a report, transmitting completed bond of Halvorson, Richards & Company on Section 9, the same being the section upon which contract was assigned by Agnew & Company, and stating that the assignment on Section 9 heretofore transmitted had been properly executed, and recommending that the accompanying bond be approved, and the President and Clerk authorized and directed to execute said assignment on Section 9 on behalf of the District, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Cooley, moved that the report be adopted, ordered printed, and, with accompanying bond, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute said assignment

of Section 9, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8.) Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with accompanying bond, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute said assignment of Section 9, on behalf of the District, as provided in the report.

The following is

## THE REPORT :

"CHICAGO, January 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance transmits herewith the bond of Halvorson, Richards & Co., assignee, for Contract Section Nine (9), in the sum of one hundred thousand (\$100,000) dollars, signed by sureties satisfactory to the Committee. The assignment for said Section Nine (9), heretofore transmitted to the Board, has been properly executed by the assignor and assignee.

This bond completes the assignment of said Contract Section Nine (9), as recommended by this Committee and approved by the Board at the meeting of January 18th.

The Committee recommends that the bond as submitted herewith be approved, and that the President and Clerk execute the assignment of Contract Section Nine (9), as heretofore directed by the Board.

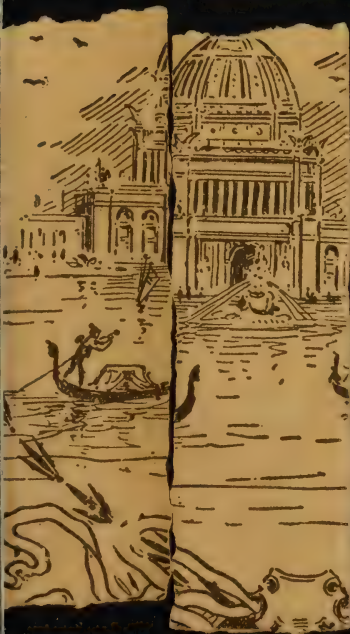
Respectfully submitted,

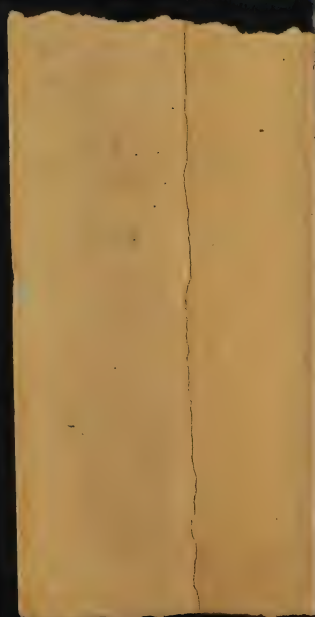
(Signed) L. E. COOLEY,  
*Chairman.*  
B. A. ECKHART,  
THOMAS KELLY,  
W. H. RUSSELL,  
JOHN J. ALTPETER,  
WM. BOLDENWECK,

*Joint Committee on Engineering and Finance."*

(Accompanied by completed bond.

Hospital







REPORT ON REQUISITIONS NOS. 380, 381,  
382 AND 383.

Mr. Cooley, Chairman, presented a report from the Committee on Engineering, returning Requisitions Nos. 380, 381, 382 and 383, for the Engineering Department, as amended, presented and referred to that Committee at the meeting held January 17, 1894, (page 1681 of the Proceedings,) and recommending that the same be allowed; and the report was read.

Mr. Cooley, seconded by Mr. Kelly, moved that the report be adopted, ordered printed, and placed on file, the recommendations made therein concurred in, and the accompanying Requisitions, Nos. 380, 381, 382 and 383, as amended, for the Engineering Department, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying Requisitions, Nos. 380, 381, 382 and 383, as amended, for the Engineering Department, allowed.

The following is

## THE REPORT:

"CHICAGO, Jan. 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to Requisitions Nos. 380, 381, 382 and 383, for the Engineering Department, presented to the Board and referred to the Committee on Engineering at the meeting held January 17, 1894 (Page 1681 of the Proceedings), we report as follows:

The Committee has suggested certain amendments, which have been made by the Engineering Department, and we return said requisitions herewith as amended, and recommend that the same be allowed.

Respectfully submitted,

(Signed) L. E. COOLEY,

*Chairman.*

THOMAS KELLY,

W. H. RUSSELL,

WM. BOLDENWECK,

JOHN J. ALTPETER,

*Committee on Engineering."*

(Four enclosures.)

REPORT ON IMPROVEMENT OF TOW-PATH,  
PROTECTION OF DISTRICT PROPERTY  
FROM FIRE, SIDE TRACK ON SECTION 12  
AND SURFACING OF SUMMIT HIGHWAY.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, accompanied by six documents, with reference to the improvement of the tow-path, preservation of District property from fire, Santa Fe side track on Section 12, and the payment for rock furnished for the surfacing of the Summit Highway, which matters were referred to that Committee at various meetings, and making certain recommendations in regard to the same; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made therein concurred in.

The following is

## THE REPORT:

"CHICAGO, January 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the question of a highway throughout the works of the District, as set forth in the letter of the Chief Engineer and communication of the Marshal transmitted therewith, presented to the Board and referred to the Joint Committee on Engineering and Finance at the meeting held January 17, 1894, (pages 1697 and 1698 of the Proceedings,) your Committee reports as follows:

The necessity of the highway is fully recognized, and the suggestion of the Chief Engineer that the control of the same be placed in the hands of the Marshal of the District, is concurred in by the Committee.

The Committee believes that provision should be made at an early date for a highway from Summit to Kedzie Avenue, along the work recently let to contract. The Committee also concurs in the view of the Marshal, that the contractors, who

are very largely benefited by this highway, should be enlisted in the construction and maintenance of the same.

We therefore recommend that the Marshal ascertain from the several contractors of the District to what extent they will co-operate with the District in this work, and that he submit to the Board specific recommendations in regard to the entire question of a highway, and that meantime any existing arrangements be continued in force.

The reports of the Chief Engineer, Superintendent of Construction and Marshal are returned herewith for filing.

In regard to the question of safes, for the preservation and safety of documents at the offices of the several Assistant Engineers, as recommended by the Chief Engineer in his report of January 17, 1894, presented and referred to this Committee at the meeting held January 17, 1894, (Page 1698 of the Proceedings) your Committee believe that it is wise to take every precaution, and we therefore recommend that suitable safes be purchased by the Clerk, on requisition of the Chief Engineer, subject to the approval of the Committee on Finance.

The report of the Chief Engineer is returned herewith for filing.

The attention of the Committee has been called to the matter of a side track, which is designed by Mason, Hoge & Company and which the "Santa Fe" Road is considering the propriety of placing on Section 12.

Your Committee recommend that the Chief Engineer be instructed to give permission for the placing of said side track, under such stipulations as will secure the removal of the same on reasonable notice, said stipulations to be subject to the approval of the Committee on Judiciary and the Attorney.

A communication of the Chief Engineer and letter from the Santa Fe Railroad Company on this subject are transmitted herewith to the Board.

The attention of the Committee has also been called to a bill for \$128.20 for broken rock, furnished by McArthur Brothers, for the surfacing of the Summit Highway, where same was graded in crossing the new levee.

The Board, on December 13, 1893, (Page 1614 of the Proceedings) authorized the expenditure for placing said rock, but it appears that this bill has been unaccountably delayed in the En-

gineering Department and authority therefor has not been granted.

We therefore recommend that the action of the Chief Engineer, in authorizing this expenditure for the purpose of restoring the Summit Highway to a suitable condition for traffic, be authorized by the Board. All of which is

Respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*

B. A. ECKHART,  
THOMAS KELLY,  
W. H. RUSSELL,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance.*

(Six' (6) enclosures.)

#### AMENDMENT TO RULE 8.

Mr. Russell, for the Committee on Rules, presented a report, recommending an amendment to Rule 8 of the Rules of the Board of Trustees, providing for a Committee on Labor, as set forth in the report; and the report and amendment were read.

Under the rules, the report and amendment were ordered printed and laid over.

The following is

#### THE REPORT:

"CHICAGO, Jan. 24, 1894.

*To the Honorable the Board of Trustees, of the Sanitary District of Chicago:*

GETLEMEN—Your Committee on Rules respectfully submit the following amendment as an addition to Rule 8 of the rules of the Board of Trustees:

'A Committee on Labor, consisting of three members.'

Your Committee respectfully recommend the adoption of the above amendment.

Respectfully submitted,

(Signed) FRANK WENTER,  
*Chairman.*

W. H. RUSSELL,  
B. A. ECKHART,  
*Committee on Rules.*"



## RECESS.

At 2:25 o'clock P. M., Mr. Cooley, seconded by Mr. Russell, moved that the Board take a recess for five minutes.

The motion prevailed unanimously and it was so ordered.

On re-assembling at the close of the recess at 2:30 o'clock P. M., on roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9) members, were present.

## REPORT ON CLAUSE "J" OF MAIN CHANNEL CONTRACTS.

The Clerk presented a report from the Chief Engineer, with reference to the enforcement of Clause "J" of the contracts for the work on the Main Channel, with reference to the grading of prices, and recommending that said clause be suspended with reference to certain contracts, as set forth in the report; and the report was read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance.

Mr. Cooley presented a resolution with reference to the same matter; and the resolution was read.

Mr. Cooley, seconded by Mr. Altpeter, then moved as a substitute for the motion of Mr. Boldenweck, that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in and the resolution adopted.

On roll-call on the substitute the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Russell and Wenter—five (5). Nays—Messrs. Boldenweck, Gilmore, Kelly and Prendergast—four (4).

Upon which result the President declared the substitute carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the resolution adopted.

The following is

## THE REPORT:

"CHICAGO, January 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The enforcement of Clause 'J' entitled 'the grading of prices' of the several contracts for work between

the range line at Summit and Lockport, has wrought such hardship upon some of the contractors engaged in prosecuting the work of the District, that I feel justified in bringing the subject before your Honorable Board and asking such relief as, in your judgment, may be warranted by the facts and conditions obtaining upon the work.

Inasmuch as the clause was manifestly incorporated in the several contracts for the protection of the District from loss or damage which might result from the abandonment of any contract after the contractor should have performed such work as could be done by him for the least outlay of money, and was in no sense intended to hamper or harass reliable contractors who had invested large sums of money in machinery and equipment ample for the execution of the work covered by their contracts, and had given evidence of their good faith and ability by prosecuting the work for many months with vigor and success. I therefore recommend that the operation of the said Clause "J" be suspended in all cases where proof has been made of intention by actual adequate investment in machinery and plant used upon the work and of ability by actual progress, it being distinctly understood that such suspension is not to be construed as an abrogation of said Clause "J" nor of the right of the Board at its discretion to enforce it, at any time or in any case now or hereafter.

In all cases in which the equipment upon the section is not sufficient to make proof of intention, nor the progress made to give proof of ability, it would seem proper and right to maintain the operation of Clause "J" until such time as both intention and ability shall have been proven.

It seems to me just and I respectfully recommend that Clause "J" be now suspended so far as it affects the following sections:

- Section F—Ricker, Lee & Co.
- Section E—Streeter & Kenefick.
- Section D—E. D. Smith & Co.
- Section 10—E. D. Smith & Co.
- Section 11—Mason, Hoge & Co.
- Section 12—Mason, Hoge & Co.
- Section 13—Mason, Hoge & Co.

And later upon any other sections fully shown to be entitled to equal consideration at your hands.

Very respectfully submitted,  
(Signed.) ISHAM RANDOLPH,  
Chief Engineer."



The following is

THE RESOLUTION:

"WHEREAS, The progress of the work and equipment upon contract sections F, E, D, ten (10), eleven (11), twelve (12) and thirteen (13), are such that in the opinion of the Chief Engineer the interests of the District do not require the enforcement of Clause "J" of the contracts in relation to said sections at the present time; therefore,

*Resolved*, That the Chief Engineer be and he is hereby directed not to enforce Clause "J" of the contracts in relation to said sections until directed so to do by this Board."

FEDERAL CO-OPERATION IN IMPROVEMENT OF CHICAGO RIVER.

The President presented a telegram just received from Congressman Durborow, with reference to a representative of the Board appearing before the Committee on Rivers and Harbors of the House of Representatives.

The telegram was read and is as follows:

"WASHINGTON, D. C., Jan. 24, 1894.

*Hon. Frank Wenter, President Board Sanitary Trustees, Rialto Building, Chicago:*

Can arrange a hearing before River and Harbor Committee on next Friday morning at ten o'clock. Will you come?

Answer.

(Signed.) ALLAN C. DURBOROW."

On motion of Mr. Prendergast, seconded by Mr. Altpeter, the Board then went into a Committee of the whole, with Mr. Kelly in the Chair.

After a general discussion, the Committee of the whole rose, and Mr. Kelly, Chairman, presented a verbal report, recommending that the President of the Board be appointed as a Committee of one to proceed to Washington and appear before the Committee on Rivers and Harbors of the House of Representatives, in response to the invitation just received, with reference to federal co-operation in the improvement of the Chicago River.

Mr. Kelly, seconded by Mr. Prendergast, then moved that the report of the Committee of the whole be adopted, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report of the Committee of the whole adopted, and the recommendations made therein concurred in.

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*







# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

JANUARY 31, 1894.

#### OFFICIAL RECORD.

*Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.*

#### REGULAR MEETING.

The two hundred and seventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, January 31, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7) members, were present.

#### MINUTES.

The minutes of the regular meeting, held January 24, 1894, were approved as printed, on motion of Mr. Boldenweck, seconded by Mr. Kelly.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (January, 1894).....	\$ 500 00
Eng. Dept., Div. No. 1, (January, 1894).....	7,145 32
Eng. Dept., Div. No. 1, (tow-path, January, 1894).....	123 50
Eng. Dept., Div. No. 2, (January, 1894).....	1,862 50
Eng. Dept., Div. No. 3, (January, 1894).....	1,848 00
Eng. Dept., Div. No. 4, (January, 1894).....	340 00
Eng. Dept., discharged men's roll, (January, 1894).....	230 27
	<hr/>
	\$12,049 59
Clerical Dept., Clerk's roll, (January, 1894).....	\$ 891 66
Treasury Dept., Treasurer's roll, (January, 1894).....	\$ 166 66

Law Dept., Attorney's roll, (January, 1894):	\$ 1,216 67	
Law Dept., Joliet roll, (January, 1894).....	333 34	
Law Dept., office roll, (January, 1894).....	320 00	
	<u>\$ 1,870 01</u>	
General Account, Sanitary Inspector's roll, (January, 1894).....	\$ 200 00	
General Account, Trustees' roll, (January, 1894).....	2,333 33	
	<u>2,533 33</u>	
Police Dept., Marshal's roll, (January, 1894).....	3,038 32	
Total.....	<u>\$20,549 57</u>	

## ENGINEERING DEPARTMENT.

*Construction Account—*

E. D. Smith & Co. (Sec. 8, Santa Fe and Stephens St. Bridge)	\$3,941 21	
E. D. Smith & Co. (Sec. 8, Santa Fe and Stephens St. Bridge)	2,787 92	
E. D. Smith & Co. (Sec. 10, core in levee).....	3,935 41	
E. D. Smith & Co. (Sec. 10, Western Stone Co. Bridge).....	601 90	
Heldmaier & Neu, (Sec. A, extra work, levee, Jan. 16, 1893).....	1,573 72	
Heldmaier & Neu, (Sec. A, extra work, levee, final, Jan. 26, 1894)	192 77	
Heldmaier & Neu, (Sec. A, extra work, filling low ground).....	407 40	
McArthur Bros. (Sec. E, Ballast, Lyons highway).....	128 20	
	<u>\$13,568 53</u>	

## CLERICAL DEPARTMENT.

Cameron, Amberg & Co. (stationery).....	\$ 7 20
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## TREASURY DEPARTMENT.

Cameron, Amberg & Co. (stationery).....	\$ 19 00
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## LAW DEPARTMENT.

<i>Chicago Daily Law Bulletin</i> , (advertising).....	\$ 89 40	
Barnard & Gunthorp, (briefs and summons)	14 00	
Joseph Donnersberger, (expert, right of way)	300 00	
Jas. H. Gilbert, Sheriff, (serving summons).....	29 25	
Orrin N. Carter, (expense).....	37 08	
	<u>\$ 469 73</u>	

## GENERAL ACCOUNT.

Cameron, Amberg & Co. (stationery).....	\$ 6 67
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The Bureau of Press Clippings, (press clippings).....	42 45	
George P. Brown, (classifying clippings).....	33 56	
	<u>\$ 82 68</u>	

## POLICE DEPARTMENT.

Orrin N. Carter (expense).....	\$ 19 88
Grand total.....	<u>\$34,716 59</u>

Mr. Kelly, seconded by Mr. Eckhart, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 921, Police Department, (coal for police stations).....	\$175 00
No. 1056, Clerical Department, (stationery and sundries).....	5 20
Total.....	<u>\$180 20</u>

Mr. Kelly, seconded by Mr. Boldenweck, moved that Requisitions No. 921, for the Police Department, and No. 1056, for the Clerical Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 921, for the Police Department, and No. 1056, for the Clerical Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District, for the week ending January 27, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Jan. 31, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report here-with the number of employes in each department for the week ending January 27, 1894, as the same have been reported to me :

Engineering Department.....	110
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	37

Total employes..... 160

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

MONTHLY REPORT FROM SANITARY INSPECTOR.

The Clerk presented a report from the Sanitary Inspector for the month of January, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Jan. 31, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The months of December and January have been marked by the usual high average of health prevailing among the employes on the work of the Drainage Channel, that has existed during the past year.

We have been very fortunate thus far in having escaped prevailing epidemics, although for a while it looked quite threatening in regard to small-pox, as we have had one case develop in one of our camps, but by destroying by fire all bedding and bunks within a radius of twenty feet from the bunk occupied by the patient, and then submitting the bunk-house to thorough and repeated fumigation, we were successful in preventing any further spread of the contagion. Every man on the work has been vaccinated; this was made compulsory by an order issued which compelled the men to submit to vaccination or leave the work. In this way we have been able to secure thorough protection to the extent that vaccination can be relied on as a protective measure.

In addition, provision has been made to have all newly employed men put through the same course; this precautionary measure will be maintained until the present epidemic subsides. There has been an improvement this year in the general sanitary condition of the camps, over its predecessor, but there is room for a great deal more.

The past summer and fall was a very busy season on the channel; work had to be hurried through and completed before the fall rains set in, and as a consequence of this a number of the camps were at times overcrowded, a condition which would not have been permitted under ordinary circumstances. The coming year will witness a stricter enforcement of existing sanitary regulations, as the various contractors have now had ample time to familiarize themselves with their requirements.

Most respectfully submitted,

(Signed) WILLIAM MARTIN, M. D.,  
*Sanitary Inspector."*

AMENDMENT TO RULE 8.

Under the head of "Unfinished Business," the report of the Committee on Rules, recommending an amendment to Rule 8 of the Rules of the Board of Trustees, providing for a Committee on Labor, as set forth in the report, which report was presented, ordered printed and laid over at the meeting held January 24, 1894 (page 1717 of the Proceedings), was again read, as provided in the rules.

Mr. Altpeter, seconded by Mr. Kelly, moved that the report and amendment be adopted, ordered printed and placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7.) Nays—None.

Upon which result the President declared the motion carried, the report and amendment adopted, ordered printed and placed on file, and the recommendations made in the report concurred in.

The following is

RULE 8, AS AMENDED:

"The following Standing Committees shall be appointed by the President of the Board, at the beginning of his term:

A Committee on Finance, consisting of three members.



A Committee on Engineering, consisting of five members.

A Committee on Judiciary, consisting of three members.

A Committee on Federal Relations, consisting of five members.

A Committee on Health and Public Order, consisting of three members.

A Committee on Rules, consisting of three members, of which the President of the Board shall be Chairman.

A Committee on Labor, consisting of three members."

#### UNSAFETY OF CANAL BRIDGE AT SUMMIT.

The Clerk presented a communication, addressed to President Wenter, from J. H. Wood, General Manager's Assistant, Chicago & Alton Railroad, stating that the bridge, owned by the District, across the Canal to Summit, is unsafe for engines to cross, and requesting that the same be put in good condition; and the communication was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance, with instructions to report back at the next meeting.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

#### THE COMMUNICATION:

"CHICAGO, January 27, 1894.

*Mr. Frank Wenter, President Drainage Board, Rialto Building, Chicago:*

DEAR SIR—We are advised that the bridge across the canal at Summit, which belongs to the Drainage Board, is unsafe for engines to cross at present, and should be repaired.

Will you kindly arrange to have it put in condition, and made safe for engines, and oblige,

Yours truly,

(Signed) J. H. WOOD,  
*General Manager's Assistant, Chicago & Alton Railroad Company."*

#### APPOINTMENT OF COMMITTEE ON LABOR.

The President then announced the following Committee on Labor, as provided for in the amendment to the Rules of the Board of Trustees, passed at the same meeting: Mr. Altpeter, Chairman, and Messrs. Kelly and Eckhart.

#### ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

## SANITARY DISTRICT OF CHICAGO.

FEBRUARY 7, 1894.

### OFFICIAL RECORD.

(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)

### REGULAR MEETING.

The two hundred and eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, February 7, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6), and subsequently Mr. Gilmore, making a total of seven (7) members, were present.

### MINUTES.

The minutes of the regular meeting,

held January 31,<sup>1</sup> 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Boldenweck.

### VOUCHERS.

The Clerk presented the following vouchers:

### ENGINEERING DEPARTMENT.

#### Construction Account—

Alfred Harley, (Sec. 1, Feb. 1, '94).....	\$ 235 55
McArthur Bros. (Sec. 2, Feb. 1, '94).....	5,276 25
Gilman & Co. (Sec. 3, Feb. 1, '94).....	7,497 00
McArthur Bros. (Sec. 4, Feb. 1, '94).....	7,601 74
Agnew & Co. (Sec. 5, Feb. 1, '94).....	1,677 38
Agnew & Co. (Sec. 6, Feb. 1, '94).....	874 12
Agnew & Co. (Sec. 7, Feb. 1, '94).....	3,475 50
Agnew & Co. (Sec. 8,	

Feb. 1, '94).....	\$ 3,401 13
Agnew & Co. (Sec. 9, Feb. 1, '94).....	336 44
E. D. Smith & Co. (Sec. 10, Feb. 1, '94).....	23,730 00
Mason, Hoge & Co. (Sec. 11, Feb. 1, '94)...	27,945 53
Mason, Hoge & Co., (Sec. 12, Feb. 1, '94)...	24,617 03
Mason, Hoge & Co., (Sec. 13, Feb. 1, '94)...	26,293 31
Heldmaier & Neu, (Sec. A, Feb. 1, '94).....	1,741 80
Western Dredging & Improvement Co. (Sec. C, Feb. 1, '94)...	1,998 06
E. D. Smith & Co. (Sec. D, Feb. 1, '94).....	10,363 72
Streeter & Kenefick, (Sec. E, Feb. 1, '94)...	8,442 34
Ricker, Lee & Co. (Sec. F, Feb. 1, '94).....	8,028 00
Christie & Lowe, (Sec. I, Feb. 1, '94).....	762 78
E. D. Smith & Co. (Sec. 10, Western Stone Co. bridge, Feb. 1, '94)...	876 36
Atchison, Topeka and Santa Fe R. R. Co., (Sec. 10, changing tracks).....	39 61
Heidenreich Co. (Sec. A, trestle, Feb. 1, '94)	2,370 21
McArthur Bros. Co., (Sec F, spillway, Feb. 1, '94).....	2,025 00
	<u>\$169,608 86</u>

## ENGINEERING DEPARTMENT.

Chicago & Alton R. R. Co. (erosive test)....	\$331 52
Eugene Dietzgen Co. (drafting material)...	8 10
F. Mayer & Co. (blue prints).....	80 07
Barnard & Gunthorp, (printing specifica- tions).....	50 00
Robert H. Cowdrey, (postage stamps).....	20 00
Chicago Towel Supply Co. (towelings).....	5 40
Trevor Spring Water Co. (ice).....	9 00
J. M. Abbitt, (coal)...	14 65
John T. Allison, (rent, Summit).....	20 00
Mrs. A. M. Munson, (rent, Mt. Forest)...	20 00
H. S. Norton, (rent, Lemont).....	18 00
O. W. Moon, (rent, Lockport).....	20 00
D. C. Dunlap, (horse and buggy).....	45 00
Geo. Brainard, (gauge reading).....	10 00
Geo. Brainard, (gauge reading).....	10 00
E. Hastings, (gauge reading).....	10 00
E. Hastings, (gauge reading).....	10 00

Wm. Kirkham, (gauge reading).....	\$ 10 00
Wm. Kirkham, (gauge reading).....	10 00
Patrick McGinnis, (gauge reading).....	10 00
Patrick McGinnis, (gauge reading).....	10 00
Mary Rusk, (gauge reading).....	10 90
Mary Rusk, (gauge reading).....	10 00
Chas. L. Harrison, (traveling).....	10 35
A. C. Schrader, (trav- eling).....	19 55
Alex. E. Kastl, (travel- ing).....	18 45
	<u>\$ 790 09</u>

## CLERICAL DEPARTMENT.

Carl F. W. Junge, (post- age stamps).....	\$40 00
Henry Gebhardt, (vault fittings).....	5 10
Trevor Spring Water Co., (ice).....	3 00
Warner's Towel Sup- ply, (towelings).....	1 50
	<u>\$ 49 60</u>

## LAW DEPARTMENT.

Jas. H. Gilbert, Sheriff, (service).....	\$ 3 00
S. A. Moffett Co., (liv- ery).....	30 00
Orrin N. Carter, (wit- ness fees).....	130 20
	<u>\$163 20</u>

## GENERAL ACCOUNT.

John F. Higgins, (printing proceed- ings).....	\$215 01
Thos. F. Judge, (ex- pense).....	73 23
	<u>\$288 24</u>
Grand total.....	<u>\$170,899 99</u>

Mr. Boldenweck seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisition:

No. 473, Law Department, (post-  
age stamps and stationery).... \$18 00



Mr. Boldenweck, seconded by Mr. Kelly, moved that Requisition No. 473, for the Law Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 473, for the Law Department, as read and shown above, allowed.

#### WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District, for the week ending February 3, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“CHICAGO, Feb. 7, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending February 3, 1894, as the same have been reported to me:

Engineering Department.....	109
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	37

Total employes..... 159

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

#### DELINQUENCY OF WORK ON SECTION 1.

The Clerk presented a report from the Chief Engineer, with reference to the delinquency of the work on Section 1, recommending that the contract for said Section be forfeited and re-let; and the report was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the report be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

“CHICAGO, Feb. 6, 1894.

*To the Honorable the Board of Trustees, of the Sanitary District of Chicago:*

GENTLEMEN—The exhibit of progress on Contract Section No. 1 during the past three months is an abundant demonstration of the inability or the unwillingness of the contractor on that section to make progress. I therefore recommend that you declare the contract for the said section forfeited and cause the same to be advertised for a reletting.

Very respectfully,

(Signed) ISHAM RANDOLPH,  
Chief Engineer.”

#### MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of January, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“Balance on hand at date of last report.....	\$227,330.57
Received from N. W. Harris & Co., for 2,000 Sanitary District bonds... \$2,000,000.00	
Received from N. W. Harris & Co., premium on the above 2,000 bonds.	35,878.50
Received from N. W. Harris & Co., for 338 Sanitary District bonds.	338,000.00
Received from N. W. Harris & Co., premium on the above 338 bonds...	6,063.46
Received from N. W. Harris & Co., accrued interest on 338 bonds....	92.59
Received from Thos. F. Judge, clerk, Land Account (for power house, etc., sold McArthur Bros).....	325.00
Received from Thos. F. Judge, clerk, General Account (Ricker, Lee & Co. forfeit on bid)....	3,000.00
Received from N. W. Harris & Co., for 50 Sanitary District bonds...	50,000.00
Received from N. W. Harris & Co., premium on the above 50 bonds....	896.96
Received from N. W. Harris & Co., accrued interest on 50 bonds.....	70.03

Received from N. W. Harris & Co., for 612 Sanitary District bonds....	\$612,000.00
Received from N. W. Harris & Co., premium on the above 612 bonds...	10,977.29
Received from N. W. Harris & Co., accrued interest on 612 bonds....	1,760.55
Received from Thos. F. Judge, clerk, Engineering Department, Construction Account (Emergency Fund) ...	80,000.00
Received from National Bank of Illinois, interest for January.....	1,085.45
Received from American Trust and Savings Bank, interest for January.....	44.57
Received from Metropolitan National Bank, interest for January..	1,044.38
Received from Globe National Bank, interest for January. ....	884.60
Received from Ft. Dearborn National Bank, interest for January..	1,079.78
Received from Chicago National Bank, interest for January.....	1,039.29
	<hr/> \$3,144,242.45
Total cash received for month.....	\$3,371,573.02
Total cash disbursed during month as per annexed schedules, viz:	
Clerical Department....	\$733.59
Treasury Department..	166.67
Engineering Departm't.	9,968.92
Engineering—Construction—Department....	191,061.91
Law Department.....	3,738.29
Law Department—Land Account.....	33,834.00
General Account.....	8,175.58
Police Department.....	2,771.14
	<hr/> \$250,450.10
Balance this date, in banks as per schedule endorsed hereon .....	<hr/> \$3,121,122.92
(Signed)	MELVILLE E. STONE, Treasurer.
Chicago, February 6, 1894."	

Chicago, February 6, 1894."

**SCHEDULE :**

Port Dearborn National Bank.....	\$ 631,122.08
National Bank of Illinois.....	631,962.61
Chicago National Bank.....	630,638.08
Metropolitan National Bank.....	633,859.95
American Trust and Savings Bank.....	21,003.79
Globe National Bank.....	572,536.41
<b>Total.....</b>	<b>\$3,121,122.92</b>

MONTHLY REPORT FROM POLICE DEPARTMENT.

The Clerk presented a report from the Police Department, for the month of January, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

### THE REPORT:

“CHICAGO, Feb. 7, 1894.

To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to submit the following as my official report for the month of January, 1894:

Total number of arrests.....	56
Total amount of fines imposed... \$452	75
Committed to jail to await action of Grand Jury.....	2
Insane cases cared for.....	1
Sent to County Hospital.....	1

During the past week the men employed on Sections 2, 4, 5, 7, 11, 12 and 13 struck against a reduction of wages to 12½ cents per hour. Much confusion and unrest resulted but quiet and good order was maintained throughout the entire affair without making a single arrest, or using any violence. Absolute neutrality was maintained, no part being taken except to maintain peace and good order. The strike has terminated by the concession of 15 cents per hour as heretofore on all the sections except 2 and 4, and the acceptance on these sections of 12½ cents per hour by the men.

Respectfully submitted,

(Signed) EDWARD WILLIAMS,  
*Marshal."*

PURCHASE OF "VONDRACHEK, ET AL"  
LANDS AND PROPERTY IN MAN-  
CHESTER.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from John Vondrachek, Hermann Sylvester, Claas Theilson, John Gossman, Herman Leddin, John Swan, Gust Simons, William S. Warren, Edward J. Martyn, James S. Watson, Levi Windmuller and Louis H. Holmes, of certain right of way lands and buildings in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands and buildings, on the vouchers of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said John Vondrachek, Herman Sylvester, Claus Theilson, John Gossmann, Herman Leddin, John Swan, Gust Simons, William S. Warren, Edward J. Martyn, James S. Watson, Levi Windmuller and Louis H. Holmes, on the vouchers of the Attorney, for the said buildings and right of way lands, as provided in the report, and that the Board of Trustees do hereby ratify the agreement made by said Committee on behalf of the Sanitary District of Chicago with said William S. Warren, Edward J. Martyn, James S. Watson, Levi Windmuller and Louis H. Holmes, for the purchase of land covered by the right of way of the Chicago, Santa Fe & California Railway Company, in case same should cease to be used for railroad purposes and revert to said grantors, their heirs or assigns.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in, and the Clerk authorized and directed to pay said John Vondrachek, Herman Sylvester, Claus Theilson, John Gossmann, Herman Leddin, John Swan, Gust Simons, William S. Warren, Edward J. Martyn, James S. Watson, Levi Windmuller and Louis H. Holmes, on the vouchers of the Attorney, for the said buildings and right of way lands, as provided in the report, and that the Board of Trustees do hereby ratify the agreement made by said Committee on behalf of the Sanitary District of Chicago with said William S. Warren, Edward J. Martyn, James S. Watson, Levi Windmuller and Louis H. Holmes, for the purchase of land covered by the right of way of the Chicago, Santa Fe & California Railway Company, in case same should cease to be used for railroad purposes and revert to said grantors, their heirs or assigns.

The following is

#### THE REPORT :

“CHICAGO, February 7, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on

Finance and Engineering has reached an agreement with John Vondrachek for the purchase from him for the corporate purposes of this District of the land hereinafter described, for the sum of one thousand one hundred (\$1,100.00) dollars;

With Herman Sylvester for the purchase from him for the corporate purposes of this District, for the sum of two hundred (\$200.00) dollars, the one-story frame cottage and smoke-house situated on Lots ten (10) and eleven (11) of Sabbath's Resubdivision of Block four (4) in Manchester, he to remove, within sixty days from date hereof, from the right of way of the District the two-story frame barn situated partly on said Lots and on Lot thirty-three (33) of said Resubdivision;

With Claus Theilson for the purchase from him for the corporate purposes of this District, for the sum of two hundred (\$200.00) dollars, his two-story frame house, cow and wood sheds, and out-buildings situated on Thirty-second street, between Rockwell street and Maplewood avenue, he to remove from the right of way of the District, within sixty days from date hereof, the frame barn there situated;

With John Gossmann for the purchase from him for the corporate purposes of this District, for the sum of three hundred (\$300.00) dollars, his two-story barn, cow shed and out buildings, and his one-story cottage and smoke-house situated on Lots thirty-nine (39), forty (40) and forty-one (41) in Block five (5) of Lichty's Subdivision of Blocks four (4) and five (5) (except Lots one (1) to five (5) inclusive in Block five (5)) of Manchester, he to remove from the right of way of the District the frame boiler-shed situated thereon and the boiler therein within sixty days from date hereof;

With Herman Leddin for the removal by him from the right of way of the District, within sixty days from date hereof, of all his buildings situated thereon, said buildings being two frame cottages, one barn and out-buildings, for the sum of two hundred (\$200.00) dollars;

With John Swan for the removal by him from the right of way of the District of his one-story frame blacksmith shop situated on Thirty-second street, between Rockwell street and Maplewood avenue, within sixty days from date hereof, for the sum of seventy-five (\$75.00) dollars;

With Gust Simons for the removal by him from the right of way of the Dis-



trict of all his buildings situated thereon, within sixty days from date hereof, said buildings being a one story frame cottage, a one-story frame barn, a two-story frame barn and a smoke-house and wagon-shed, for the sum of two hundred (\$200.00) dollars;

With William S. Warren, Edward J. Martyn, James S. Watson, Levi Windmuller and Louis H. Holmes for the purchase from them for the corporate purposes of this District of the land herein-after described, for the sum of five thousand seven hundred and thirty-six (\$5,736.00) dollars. As a part of the consideration of the sale of said land by the above named grantors, it is agreed that if the right of way of the Chicago, Santa Fe and California Railway Company across said Blocks twenty-eight (28) and twenty-nine (29), of Nickerson's Subdivision hereinafter more fully described, should ever cease to be used for railroad purposes, and if the title thereto should thereupon revert to the above named grantors, their heirs or assigns, then and in that case the said grantors agree to convey to the Sanitary District, by good and sufficient warranty deed, free and clear from all incumbrances, and deliver possession of the same to it upon the payment by it therefor at the rate of eight hundred (\$800.00) dollars per acre, and said Sanitary District covenants and agrees in the case aforesaid to purchase and pay for the said right of way on the said terms, and in case the title to any part of said right of way should revert to the above named grantors, their heirs or assigns, they agree to convey and said Sanitary District agrees to purchase so much thereof as shall have reverted at the rate of eight hundred (\$800.00) dollars per acre. Your Committee recommend that this agreement, made by us on the part of the Sanitary District, be ratified by your Honorable Body.

Your Committee recommend that the Clerk of this District be directed to pay, on the vouchers of the Attorney, to said John Vondrachek the sum of one thousand and one hundred (\$1,100.00) dollars, in full payment for the following described land, to-wit:

Lot twenty-eight (28) in Sabath's Re-subdivision of Block four (4) in Manchester, Cook County, Illinois, said Manchester being a subdivision of that part lying north (N) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the north-east quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) north,

Range thirteen (13), East of the Third Principal Meridian.

To Herman Sylvester the sum of two hundred (\$200.00) dollars, in full payment for his buildings hereinabove named.

To Claus Theilson the sum of two hundred (\$200.00) dollars, in full payment for his buildings hereinabove named.

To John Gossman the sum of three hundred (\$300.00) dollars, in full payment for his buildings hereinabove named.

To Herman Leddin the sum of two hundred (\$200.00), in full payment for the removal by him from the right of way of the District of his buildings as aforesaid.

To John Swan the sum of seventy-five (\$75.00) dollars, in full payment for the removal by him from the right of way of the District of his blacksmith shop as aforesaid.

To Gust Simons the sum of two hundred (\$200.00) dollars, in full payment for the removal by him from the right of way of the District of all his buildings as aforesaid.

To William S. Warren, Edward J. Martyn, James S. Watson, Levi Windmuller and Louis H. Holmes, represented in Chicago by Campbell & Custer, their attorneys, the sum of five thousand seven hundred and thirty-six (\$5,736.00) dollars, in full payment for the following described land, to-wit:

That part of Blocks twenty-eight (28) and twenty-nine (29) in Nickerson's Subdivision of the east half (E.  $\frac{1}{2}$ ) of Section six (6), Township thirty-eight (38) North, Range thirteen (13), East of the Third Principal Meridian, lying north of the northerly boundary line of the right of way of the Chicago, Santa Fe & California Railway Company, and south of a line drawn from a point in the east (E.) line of said section, five hundred and forty-one (541) feet north of the southeast corner thereof, to a point in the east (E.) line of said Block twenty-nine (29), two hundred and seventy-seven and thirty-five one-hundredths (277.35) feet north of the south (S.) line of said section and produce thence in a south-westerly direction to said south (S.) line, said premises lying and being situate in the County of Cook, State of Illinois. The deed for said land is to contain the provisions hereinabove given for the purchase by the District of land covered by railroad right of way in

case same should cease to be used for railroad purposes.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

WM. BOLDENWECK,

THOMAS KELLY,

W. H. RUSSELL,

L. E. COOLEY,

*Joint Committee on Finance and Engineering."*

#### REPORT ON WASTING OF MATERIAL ON SECTION D.

Mr. Cooley, Chairman, presented a report from the Committee on Engineering, transmitting an order, with reference to and accompanied by the report of the Chief Engineer, with enclosure, in regard to permission to E. D. Smith & Co., to waste material on the east side of the Main Channel on Section D., presented to the Board and referred to that Committee at the meeting held January 24, 1894, (page 1713 of the Proceedings); and the report and accompanying order were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made therein concurred in, and the accompanying order adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered, printed and, with enclosures, placed on file, the recommendations made therein concurred in, and the accompanying order adopted.

The following is

THE REPORT, WITH ACCOMPANYING  
ORDER:

"CHICAGO, Feb. 7, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the request of E. D. Smith & Company, contractors for Section D of the Main Channel, for the privilege of spoiling material upon the easterly side of the Main Channel, said request having been transmitted to the Board by the Chief Engineer, and referred to the Committee on Engineer-

ing at the meeting held January 24, 1894, (page 1713 of the Proceedings), your Committee recommends that the privilege be granted in accordance with an order prepared by the Chief Engineer and transmitted herewith for the action of the Board.

The report of the Chief Engineer and communication of E. D. Smith & Co. are returned for filing.

Respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.

THOMAS KELLY,

W. H. RUSSELL,

WM. BOLDENWECK,

*Committee on Engineering."*

(Order and two (2) enclosures.)

The following is

#### THE ORDER:

"WHEREAS, The Chief Engineer has recommended that on Section D the contractor be allowed to waste material excavated from the Main Channel upon the easterly side thereof, and has shown to this Board that the work on that Section would be facilitated and the interests of this District thereby advanced; therefore, be it

*Ordered*, That the contractors for Section D be permitted, under the direction of the Chief Engineer of this District, at such places and in such manner as he may designate, to waste material taken from the Main Channel upon lands adjacent to the easterly side thereof; provided no extra expense shall accrue to this District by reason of granting the privilege herein provided for."

#### ADJOURNMENT TO SPECIAL TIME.

Mr. Cooley, seconded by Mr. Boldenweck, moved that when the Board adjourn, it do adjourn to meet Saturday, February 10, 1894, at 1 o'clock P. M.

The motion prevailed unanimously and it was so ordered.

#### WAGES OF LABORERS ON DISTRICT WORKS.

Mr. Kelly, for the Committee on Labor, presented a report transmitting resolutions with reference to the wages paid common laborers on the work of the District, and recommending the adoption of the same; and the report and accompanying resolutions were read.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying resolutions adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying resolutions adopted.

The following is

THE REPORT, WITH ACCOMPANYING RESOLUTIONS:

“CHICAGO, Feb. 7, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Labor transmit herewith a resolution with reference to the wages paid common laborers on the works of this District, and respectfully recommend the adoption of the same as the sense of your Honorable Body.

Respectfully submitted,

(Signed) JOHN J. ALTPETER,  
*Chairman.*

THOMAS KELLY,

B. A. ECKHART,

*Committee on Labor.”*

(Enclosing resolutions.)

The following are

THE RESOLUTIONS:

“WHEREAS, It is commonly reported

and generally believed that many of the contractors of the Sanitary District of Chicago have reduced, or are about to reduce, the wages of their men from fifteen (15) cents an hour to twelve and one-half (12½) cents an hour; and,

WHEREAS, We believe that in bidding on this work originally all the contractors made their bids on a basis of paying not less than fifteen (15) cents per hour for all common labor; and,

WHEREAS, We are of the opinion that much more efficient service can be obtained from men who are paid fifteen (15) cents an hour than from those who are paid a less sum; and that in the end labor paid reasonable wages is the cheapest, and that competent and able-bodied men should not be asked to work for less than fifteen (15) cents an hour; and,

WHEREAS, Many of the contractors have heretofore given to the Trustees strong assurances that they would not pay less than fifteen (15) cents an hour for common labor; therefore,

*Resolved*, That it is the sense of this Board that the contractors of the District should not pay less than fifteen (15) cents per hour for all common labor, and that we request and urge all contractors of the District who have reduced wages below this figure to restore them immediately;

*Resolved*, That the Clerk of the District be directed to send a copy of these resolutions to every contractor of the District.”

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned to meet Saturday, February 10, 1894, at 1 o'clock P. M., pursuant to motion.

THOS. F. JUDGE,  
*Clerk.*



## PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

## SANITARY DISTRICT OF CHICAGO.

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FEBRUARY 10, 1894.

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## OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

## ADJOURNED MEETING.

The adjourned session of the two hundred and eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Saturday, February 10, 1894, at 1 o'clock P. M., pursuant to motion.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6), and subsequently Mr. Gilmore, making a total of seven (7) members, were present.

EXTENSION OF LEASE OF DISTRICT  
OFFICES.

The President presented a message,

with reference to the extension of the lease from the Chicago Deposit Vault Company of the present offices of the District, recommending action with reference to same; and the message was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the message be ordered printed and referred to the Committee on Finance, with instructions to report back to the Board.

The motion prevailed unanimously, and the message was ordered printed and so referred.

The following is

## THE MESSAGE:

“CHICAGO, Feb. 10, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I beg to call the attention of your Honorable Body to the fact that

the lease with the Chicago Deposit Vault Company for the offices now occupied by the District, in the Rialto Building, expires April 30 next, and if an extension of the said lease is desired, it will be necessary for the Board to at once take some action in regard to same.

I respectfully recommend that your Honorable Body take the matter under advisement for immediate action.

Respectfully submitted,

(Signed) FRANK WENTER,  
*President.*

#### ENGINEERS' OFFICE ON CHICAGO DIVISION OF MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer, making requisition for authority to secure and furnish suitable quarters for an Engineers' office at Brighton, on the Chicago Division of the Main Channel, as provided in the report; and the report was read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the report be ordered printed and placed on file, and the requisition made therein allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, and requisition made therein allowed.

The following is

#### THE REPORT:

"CHICAGO, Feb. 7, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The progress of the work demands the establishment of an office for the use of the engineers who will be employed upon the construction of the Chicago Division of the Channel. The most available location for this office is in Brighton, and I find that we can secure suitable quarters there at a rental of \$25.00 per month. I therefore ask authority to rent said office room and fit the office up for immediate use.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*

#### APPROVAL OF ANNUAL REPORTS OF CLERK AND TREASURER.

Mr. Eckhart, Chairman, presented a

report from the Committee on Finance, with reference to and accompanied by the annual report of the Clerk and Treasurer for 1893, presented and referred to that Committee at the meeting held January 17, 1894, (pages 1683 and 1688 of the Proceedings) recommending that said reports be approved and placed on file; and the report was read.

Mr. Eckhart, seconded by Mr. Russell, moved that the report be adopted, ordered printed, and, with enclosures, placed on file, and the recommendation made in the report concurred in.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

"CHICAGO, Feb. 10, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance, to whom were referred the annual reports of the Clerk and Treasurer for the year ending December 31, 1893, which reports were presented to your Honorable Body at the meeting held January 17, 1894, (pages 1683 and 1688, respectively, of the Proceedings,) respectfully report that they have examined and compared the same and find them to be correct; and your Committee return the said reports herewith, with the recommendation that they be approved and placed on file.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*

W. H. RUSSELL,

THOMAS KELLY,

*Committee on Finance.*

(Accompanied by two annual reports.)

#### FORFEITURE OF HARLEV CONTRACT ON SECTION 1.

Mr. Cooley, Chairman, presented a report, accompanied by resolutions, from the Joint Committee on Engineering and Finance, with reference to the Harlev contract on Section 1, recommending the forfeiture of the said contract, and the re-advertisement of the work on said section under new specifications to be submitted by the Chief Engineer; and the report and accompanying resolutions were read.

Mr. Cooley, seconded by Mr. Russell,

moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying resolutions adopted as the sense of the Board.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying resolutions adopted as the sense of the Board

The following is

THE REPORT, WITH ACCOMPANYING  
RESOLUTIONS:

“CHICAGO, Feb. 10, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—On December 26, 1893, the Board issued notice of intention to forfeit Contract Section 1. On January 10, 1894 (page 1672 of the Proceedings) this Committee was instructed to consider any necessary changes and stipulations in reference to Section 1, among other sections.

The Committee reached the conclusion at an early date that Section 1 should be forfeited and readvertised. To this end stipulations have been entered into with the contractors for Section A by which some 3,000 feet of river levee and 700 feet of Main Channel have been surrendered for the purpose of being relet as a part of Section 1, it having developed that these portions of Section A can thus be more advantageously carried out. Section 1, as thus amended, will have a length of 6,700 feet, and 2,300 feet additional of levee.

Certain modifications have been made in the original specifications for Section 1, all of which have been submitted to the Committee, and which are set forth at length in the report of the Chief Engineer, transmitting new specifications to the Board.

We submit herewith a declaration of forfeiture on Contract Section 1, and recommend that the same be adopted.

We recommend that said Contract Section 1, as modified, be readvertised under the new specifications this day submitted

by the Chief Engineer, and that bids be received on April 18, 1894.

Very respectfully submitted,  
(Signed)

L. E. COOLEY,

*Chairman.*

THOMAS KELLY,

WM. BOLDENWECK,

B. A. ECKHART,

W. H. RUSSELL,

*Joint Committee on Engineering and  
Finance.”*

The following are

THE RESOLUTIONS:

“*Resolved*, That the contract between the Sanitary District of Chicago and Alfred Harley, bearing date the 12th day of July, A. D. 1892, for work on Contract Section one (1) of the Main Channel of said District, be and the same is hereby forfeited on account of the failure of said Harley to comply with its provisions;

*Resolved, further*, That the Clerk of the District be and he is hereby directed to give notice of said forfeiture to said Harley.”

AGREEMENT FOR EXTRA ALLOWANCE AND  
CHANGES ON SECTIONS A AND B.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, accompanied by two agreements in duplicate, a sub-committee report and three other documents, all with reference to claim for extra allowance on account of hard material, (presented and referred to that Committee at the meeting held Oct. 4, 1893, page 1495 of the Proceedings), and certain changes on Sections A and B of the Main Channel, for which Messrs. Heldmaier & Neu are contractors; and the report and accompanying agreements and sub-committee report were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, with accompanying agreements and sub-committee report, ordered printed, and, with all other enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreements on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart (except as to extra allowance), Gilmore,



(except as to extra allowance), Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, with accompanying agreements and sub-committee report, ordered printed, and, with all other enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreements on behalf of the District, as provided in the report.

The following is

THE REPORT, WITH ENCLOSURES :

"CHICAGO, Feb. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance has had under consideration several questions in regard to Contract Sections A and B, and reports as follows:

On October 4, 1893, (page 1495 of the Proceedings) there was referred to the Committee a claim for an extra allowance on account of hard material on the river diversion, Section B. A claim has also been brought to the attention of the Committee on account of material necessarily excavated below grade at the lower end of the river diversion on Section A.

There was referred to the Committee on November 8, 1893, (page 1645 of the Proceedings) a communication of the Superintendent of Construction, transmitted by the Chief Engineer, making certain recommendations as to the treatment of the unstable material in excavating the Main Channel.

The contractors have failed to complete the levee on contract time through Section A, and do not admit any liability for the same under the existing conditions. In order to facilitate this work, the Board, by order of October 18, 1893, (page 1519 of the Proceedings) authorized the construction of a pile trestle some 4500 feet long, and, by order of the same date, directed the Chief Engineer to obtain prices for filling in the same. On November 15, 1893, (page 1573 of the Proceedings) the Canal banks were ordered raised on account of inability to secure the completion of the river diversion levee on time.

The entire subject matter was referred to the Chief Engineer, the Superintendent of Construction and the Attorney, and their report, together with an agree-

ment reached with the contractors for Sections A and B is herewith transmitted to the Board as a part of the report of this Committee.

The matters concluded may be presented under three heads: 1. The river diversion and levee. 2. The retaining walls. 3. The prism of the Main Channel.

#### 1. *The River Diversion and Levee—*

It appears that the claim on account of hard material on Section B is an extra of 20 cents on 32,000 yards, or \$6,400. The claim for extra excavation at the lower end on the river diversion, on account of the necessity of using a dredge, is in excess of 20,000 yards, which, at the contract price, is something over \$6,000. The extra depth is undoubtedly advantageous to the river diversion.

The material for building and completing some 4,800 feet of the river levee is not available on Section A except through a long haul and for a limited portion of this work. To the extent that material is now in sight, the contractor is allowed a price for hauling in the same, and is to complete some 1800 feet of levee upon which work has been done, requiring some 60,000 yards at 36 cents, or \$21,600. So far as the material may be advantageously brought in from Section 1, or for a distance of some 3000 feet, the right to construct this levee is waived, so that the same may be advertised as part of Section 1, except that the contractor may continue his filling under certain restrictions and at the price fixed for over-haul from Section 1.

The contractors agree to abandon and waive all claims for excavating hard material on the river diversion, and all other claims for extras for work heretofore done, except the payment for material necessarily excavated below the grade line at the lower end of the river diversion.

The adjustment made is believed to be equitable under the contract and in the interest of the work. To attempt to complete the levee throughout as a part of the work on Section A, if it can be done at all under existing conditions, will involve a cost of not less than \$40,000 above what may reasonably be expected from doing the lower 3000 feet of the work in connection with Section 1.

#### 2. *The Retaining Wall—*

The contract calls for 2700 feet of retaining walls on Section A, while it appears that rock for their construction is not available. These walls will be

dispensed with from a point immediately above the highway, and to the extent required, should be made a part of Section 1 on which rock is available. Accordingly, the westerly 700 feet of the section is surrendered for the purpose of being added to Section 1, the contractor, however, to be allowed to complete the hydraulic dredging of soft material therein, if done by May 1. The prism of the standard earth section is to obtain throughout Section A.

The dry rubble retaining wall thus dispensed with, at contract prices, would cost about \$75,000, and double this amount should walls of cement masonry prove to be necessary. The additional excavation for the full earth channel will cost some \$36,000, and an extreme assumption in regard to the higher price of 700 feet relinquished as a part of Section 1, would amount to an increase of \$24,000, a total of \$60,000 to offset against a saving of \$75,000 to \$150,000, according to the wall that will ultimately be required.

### 3. *The Prism of the Main Channel—*

Throughout Sections A and B exists an unstable stratum of a thickness of from 8 to 20 feet, for the removal of which the hydraulic dredge is peculiarly adapted. By any practicable method of excavation it is not feasible to form the true prism or proper banks of the channel through this unstable material, nor to maintain the channel when the same is completed. Without a specific plan in the contract there is no limit to the extra volume of material to be handled and paid for, and in the end, banks of staple material must be provided.

Accordingly a limit is stipulated for the removal of the soft material, so as to form a berm or bench at the level of the underlying hard material, said berm to be built up of proper material to form the banks of the channel, and secure the soft material behind. The amount of material beyond the prism to be paid for on A and B is estimated at some 260,000 yards at a cost of about \$75,000. As, however, it is the opinion of the Chief Engineer and Superintendent of Construction that this amount does not represent over one-third the material which would ultimately find its way into the Main Channel, in the absence of any definite plan, this may be looked upon as a saving of \$150,000, to which should be added the extra cost of proper banks after the loss is entailed.

Your Committee concludes that all the foregoing stipulations are advantageous

in clearly defining features of the work which proves not to have been properly anticipated in the contract.

They are clearly advantageous to the contractor, in fully outlining the treatment in doubtful cases, and in making an equitable settlement in disputed matters, without curtailing prospective profits. They are likewise advantageous to the District, in securing far better results at much less cost.

Your Committee recommend that the form of agreement with Heldmaier & Neu, contractors for Sections A and B, submitted herewith, be approved, and that the President and Clerk be authorized and directed to execute the same on behalf of the District.

The papers referred to the Committee are returned herewith for filing.

Respectfully submitted,

(Signed) L. E. COOLEY.

*Chairman.*

THOMAS KELLY,

WM. BOLDENWECK,

W. H. RUSSELL,

*Joint Committee on Engineering and Finance."*

"I concur in the majority report as to the changes and stipulations, but dissent as to the payment for extras.

(Signed) B. A. ECKHART."

(Accompanied by two (2) agreements in duplicate, three (3) reports and one (1) communication.)

(ENCLOSURE.)

"CHICAGO, Feb. 7, 1894.

*To the Committee on Engineering and Finance:*

GENTLEMEN—As a sub-Committee we respectfully submit the following report:

During the past few months the conditions obtaining upon Sections A and B have been carefully considered with a view to reaching a solution of the problems involved in the construction of those sections which would demand the least outlay of money to the District; and an adjustment of the questions at issue between the contractors and the District which would be just and equitable to both. Several plans have been suggested which at first seemed feasible, but after being fully discussed they have been abandoned, and we now submit what we



believe to be the proper method of treating these sections from a constructive standpoint, and one which harmonizes with our views of the equities involved.

It is proposed that the contractors shall excavate the soft material overlying the hard sub-stratum by the use of hydraulic dredges so as to leave berms on each side of the channel, at the surface of the hard material, which shall have a width of five times the thickness of the soft material. Upon the berm or bench so formed the contractor is to deposit hard material, dredged from the channel or procured by any one of several practical methods, and form a levee which shall protect the channel from the influx of soft material exterior to itself. By this method successive areas may be enclosed, unwatered and worked in the dry. The contractor to be paid for the material excavated from the berms just described at the contract price per cubic yard for each section, which shall be the sole and only extra cost to the District for bringing these sections into workable condition.

The increase of quantities by reason of the treatment which we propose will closely approximate 155,636 cubic yards on Section A and 106,600 cubic yards on Section B. Taking the contract prices on the respective sections we would have on

Section A, 155,636 cu. yds. at	
30% c.....	\$47,663 50
Section B, 106,600 cu. yds. at	
27c.....	28,782 00
Or a total of.....	<u>\$76,445 50</u>

Under the existing contract the District must pay for all material necessarily removed from the channel (see Clause 19, Page 9 of Contract, "measurement") during its construction, in other words, the District not only pays for the net volume prescribed for the finished channel, but for all increase of that volume caused by adjacent material slipping or flowing in upon the channel areas and for whatever increase of dimensions it may become necessary to give to the channel section during construction to insure that the completed work shall have the prescribed section. We believe that the treatment we propose will effect a saving to this District equal to twice the cost involved in carrying out our plan; in other words, under the existing contract, to secure the net section called for, the contractor would have to remove not less than 467,000 cubic yards in excess of the

net prism on Section A, and not less than 320,000 cubic yards on Section B.

Section A, 467,000 cu. yds. at	
30% c.....	\$143,018 75
Section B, 320,000 cu. yds. at	
27c.....	86,400 00

Total probable cost with-	
out adjustment.....	\$229,418 75
Approximate cost on basis	
proposed.....	<u>\$ 76,445 50</u>

Saving to District.....	<u>\$152,973 25</u>
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It is proper to state here that under the methods of working adopted by Heldmaier & Neu the muck which is removed from the main channel on those portions where our right of way is narrow and insufficient is pumped away several thousand feet to the easterly end of the section, where the spoil area is greater. This is a great advantage to the District.

It is proposed that the contractors on Section A shall abandon the west 700 feet of that section after pumping off the soft material, and this 700 feet is to be added to Section No. 1. The idea in this being to make Section A a thorough earth section, fixing the transition from the earth to the walled channel at the end of the rock, as indicated by our borings. This treatment dispenses with about 2,000 feet of walled channel called for by the contract (Page 4, Clause 4 of contract; also Page 6, Clause 6), on a stretch of channel which contains no rock for wall building.

The contractor is relieved of the necessity of providing a rock outfit for a very small volume of out-put, and the District is relieved of the cost of walls which are not essential to the work. The cost of these dry rubble walls would be approximately \$74,200, viz.: 4,000 lineal feet— $10\frac{6}{10}$  cu. yds. per foot, or 42,400 cu. yds. at \$1.75=\$74,200. But it is admitted that dry rubble walls form an improper construction for this work, owing to the indifferent character of the rock found, and rubble laid in cement mortar will have to be adopted as a substitute; such a wall will cost double or more than double the price bid for dry wall.

In the matter of the levee on river diversion it is conceded that the cost of its construction should properly be borne by the District for the reason that there is no material upon Section A available for its construction, and the contractor cannot be required by his contract to bring



material from beyond the limits of the section.

(a) It is proposed that all of that portion of the levee lying between Station 710 and the Willow Springs Road shall be constructed with material brought from the main channel excavation, Section No. 1, and that the contractors for Section A shall abandon all claim to a right to build this portion of the levee, except as hereinafter provided. It is further proposed that Heldmaier & Neu shall complete the river diversion levee between Stations 692 and 710 with material borrowed from the river diversion spoil banks on the east end of A and west end of B. This material to be measured in excavation and paid for at the fixed rate of 36 cents per cubic yard. And further, it is proposed that Heldmaier & Neu shall be permitted after completing the said levee as far as Station 710 to build on westward until a junction is made with the levee being constructed eastward from the Willow Springs Road, subject to the limitation that they shall not reduce the volume of the fill to be made by the contractors for the westerly portion of the levee below 150,000 cubic yards. For all material carried west of Station 710 Heldmaier & Neu are to be paid the same price per cubic yard which the contractor on the west end receives for filling this levee.

Heldmaier & Neu have made certain claims against the District for work done by them. While they could not technically collect all, and probably none, of these claims, yet the circumstances are such that we believe that these claims should receive fair consideration by the Board, especially in view of the fact that in face of serious difficulties, discouragements and threatened losses these contractors have continued in the vigorous prosecution of their work and have carefully guarded the interests of the District. If Heldmaier & Neu will abandon and waive all other disputed claims of every nature for work heretofore done by them, we would respectfully recommend that they be paid at the contract

price for the removal of 21,225 cubic yards of soft material necessarily removed below the prescribed grade in completing the river diversion on Section A—a work of undoubted benefit to the District, and for which Heldmaier & Neu have never received any compensation.

Respectfully submitted,

(Signed)

ORRIN N. CARTER,  
*Attorney.*

ISHAM RANDOLPH,  
*Chief Engineer.*

U. W. WESTON,  
*Supt. of Const'n.*  
*Sub-Committee."*

AGREEMENT :

"*This Agreement, Made this tenth (10th) day of February, 1894, between the Sanitary District of Chicago, party of the first part, and Ernst Heldmaier and Peter W. Neu, co-partners, doing business under the firm name and style of Heldmaier & Neu, party of the second part, witnesseth: that,*

WHEREAS, Second party are the assignees of a contract heretofore entered into between L. D. Connor & Co. and first party, bearing date the first (1st) day of February, A. D. 1893, for the excavation of that portion of the Main Channel known as Section A, and collateral work connected therewith, and in the prosecution of said work claim that certain portions thereof already executed by them under the direction of the Chief Engineer, of first party, do not properly fall within the requirements and specifications of said contract, and that compensation should be allowed them therefor as extra work; and,

WHEREAS, It has developed that for a portion of said Main Channel included within the limits of Section A, certain requirements of the specifications of said contract could be more economically and advantageously carried out in connection with the work on Contract Section 1 than if retained as part of Section A;

Now, Therefore, In consideration of the reciprocal promises herein contained, the parties hereto covenant and agree as follows:

*First*—Second party hereby relinquishes and surrenders all right to excavate any

portion of said Main Channel, or to do any collateral work in connection therewith below Station 733, except as hereinafter provided, and hereby especially agrees that the westerly terminus of Contract Section A shall be changed from Station 740, as heretofore established, and shall hereafter be and remain fixed at said Station 733, but second party shall have the privilege of excavating any material from the Main Channel between Stations 733 and 740 that may be removed by means of the hydraulic dredge and which they shall be able so to remove prior to May 1, A. D. 1894, and they shall be paid therefor at the rate fixed in their contract, to-wit: Thirty and five-eighths (\$0.30 $\frac{5}{8}$ ) cents per cubic yard, and at said last mentioned date a final estimate shall be made of all work done below said Station 733 up to that date.

*Second*—Second party further agrees to relinquish all claims to the right, by reason of their contract, of constructing the levee adjacent to the river diversion below Station 710, but they may have the privilege of placing suitable material in said levee under the direction of the Chief Engineer, and of completing same so far as they may be able below said Station 710, of the required grade and slopes, provided they do such levee work at the rate for overhaul provided for in the contract for Section One (1) as same shall be re-let, and provided further that at least 150,000 cubic yards of said levee be left to be constructed by the contractor for said Section One (1).

*Third*—It is further agreed that the prism of the Main Channel above Station 733 shall be that of the unwallled channel and that the muck and soft material capable of removal by means of the hydraulic dredge shall be removed beyond the true prism of said channel so as to leave a reasonable berm over the firm material beneath; said reasonable berm being understood to mean a width of five times the thickness of the overlying unstable stratum, measured at the level of the firm material, except as said width may be limited by adjacent spoil banks of the canal or any other deposit or stratum of material of a stable character. Said extra width shall be excavated at the price fixed in the contract for glacial drift, and all material removed within said limits shall be paid for at said rate. The material removed by the hydraulic dredge shall be wasted at a

safe distance not exceeding 3,000 feet, to be determined by the Chief Engineer, and the sides of the excavation in the muck shall be revetted by hard material taken from the Main Channel in such manner as may be necessary to prevent same from sloughing out or encroaching upon said berm or sliding toward the channel when the pit shall be pumped out for the purpose of excavating the firmer material, it being understood and agreed that said berm shall be built up of suitable material from the Main Channel so as to form the true sides of said channel, and in such manner as to form stable banks, and as the Chief Engineer may direct. In case suitable material for revetting the sides of the excavation in the muck as above specified shall not be found in the Main Channel, first party will cause such material to be brought from Section One (1) and placed in dumps along the line of the pile trestle located on said Section A, whence second party shall, at their own expense, remove same and place it in the revetments in the manner hereinbefore directed.

*Fourth*—It is further agreed that second party will at once proceed to fill in the levee where the same is incomplete to the standard height and prism to Station 710, using for this purpose any surplus material excavated from the river diversion, but no material shall be moved that is within the proper limits for a levee of a width of thirty feet on top, and first party agrees that in consideration of the trimming and completion of said levee throughout to said Station 710, to the satisfaction of the Chief Engineer, on or before July 1, 1894, first party will pay to second party thirty-six (36) cents per cubic yard, measured at the borrow for all material used between Station 692 and Station 710, provided, however, that ten (10) per cent of the cost of such work between said Stations shall be retained by first party until same is completed in accordance with the terms hereof, and that the pile trestle between said Stations be accepted and maintained by second party for this work until same is completed.

And it is further understood and agreed that said second party may, at its option, place material in said levee from the Main Channel, should the same prove practicable, at the price for overhaul which shall be fixed for the levee below Station



710 in the contract for Section One (1), as same shall be re-let.

*Fifth*—First party agrees to pay second party for the material removed from the river diversion below Station 709 to a depth of four (4) feet below the established grade to the amount of 21,225 cubic yards, at the price fixed in the contract, said material being necessarily excavated through the use of the dredge required for that class of work, and second party relinquishes all claims for the excavation of hard material on the river diversion on said Section, and all claims for extras made prior hereto and not especially provided for in this agreement. Said original contract for said Section A is in no wise altered or affected except in the particulars herein specified; as to all other matters the same is to remain in full force and effect.

IN WITNESS WHEREOF, On the day and year first above written the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and said party of the second part have hereunto set their hands and seals."

"*This Agreement, Made by and between the Sanitary District of Chicago, party of the first part, and Ernst Heldmaier and Peter W. Neu, co-partners, doing business under the firm name and style of Heldmaier & Neu, witnesseth:*

That in consideration of the agreement this day entered into between said parties making certain stipulations in regard to the work upon Section A under the contract between them, second party hereby releases all claims for extra compensation on account of the excavation of hard material in the river diversion upon Section B, and agrees to proceed at once and fill in the levee on said last named Section where the same is incomplete, to the standard height and prism, and to complete the river diversion on said Section in accordance with the directions of the Chief Engineer of first party.

And in further consideration of the payment by first party of the price per cubic yard provided in the contract for the excavation of glacial drift upon said Section B, second party agrees that where the course of the Main Channel upon said Section runs

through muck and soft material capable of removal by a hydraulic dredge, they will remove same beyond the true prism of said channel so as to leave a reasonable berm over the firm material beneath, said reasonable berm being understood to mean a width of five times the thickness of the overlying unstable stratum measured at the level of the firm material, except as said width may be limited by adjacent spoil banks of the canal or any other deposit or stratum of material of a stable character, and all material so removed by the hydraulic dredge shall be wasted at a safe distance not exceeding 3,000 feet, to be determined by said Chief Engineer, and the sides of the excavation in the muck shall be revetted by hard material taken from the Main Channel in such manner as may be necessary to prevent same from sloughing out or encroaching upon said berm or sliding toward the channel when the pit shall be pumped out for the purpose of excavating the firmer material; it being understood and agreed that said berm shall be built up of suitable material from the Main Channel so as to form the true sides of said channel, and in such manner as to form stable banks, and as the Chief Engineer may direct. In case suitable material for revetting the sides of the excavation in the muck as above specified shall not be found in the Main Channel, first party will cause such material to be brought from Section one (1) and placed in dumps along the line of the pile trestle located on said Section B, whence second party shall, at their own expense, remove same and place it in the revetments in the manner hereinbefore directed.

IN WITNESS WHEREOF, On the tenth (10th) day of February, A. D. 1894, the said Sanitary District of Chicago has caused these presents to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and said party of the second part have hereunto set their hands and seals."

REVISED ADVERTISEMENT, SPECIFICATIONS, BOND AND PROPOSALS FOR  
RE-LETTING OF SECTION 1.

The Clerk presented a report from the Chief Engineer, transmitting revised form of advertisement, specifications, bond and proposals for the re-letting of Section 1 of the Main Channel; and the report and enclosure were read.



Mr. Cooley, seconded by Mr. Boldenweck, moved that the report and accompanying form of advertisement, specifications, bond and proposals be adopted, ordered printed and placed on file.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the report and accompanying form of advertisement, specifications, bond and proposals adopted, ordered printed and placed on file.

The following is

THE REPORT, WITH ADVERTISEMENT,  
SPECIFICATIONS, ETC.

“CHICAGO, Feb. 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago :*

GENTLEMEN—I herewith submit a revised form of specifications under which it is proposed to relet Section No. 1. This section is to be lengthened by the addition of the 700 feet between Station 733 and 740 surrendered by the contractors for Section A.

The supplemental work which the revised contract contemplates is :

First. The completion of the levee along the River Diversion in front of said section as far as the Willow Springs road.

Second. Raising and completing the roadway of the Willow Springs road as prescribed by ordinance of the village of Mt. Forest (see proceedings, page 1614).

Third. Providing a roadway around the east end of the section for use during the excavation and bridging of the Main Channel.

Fourth. The construction of the foundation masonry for pivot pier and abutments of Willow Springs road.

Fifth. Completion of the River Diversion levee on Section A eastward to Station 710 or until met west of that station by filling which may be made from the east end. The minimum volume of said fill to be 150,000 cubic yards. This levee can be made with less cost to the District from the excavation on Section No. 1 than from any other available source. The cost in excess of the Main Channel excavation price

should be due to haulage only, and ought not to exceed 15 cents per cubic yard.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

*(Chief Engineer.)*

(Enclosing advertisement, etc.)

The following is

## THE ADVERTISEMENT :

“SANITARY DISTRICT OF CHICAGO.

*To Contractors:*

Sealed proposals addressed to the Board of Trustees of the Sanitary District of Chicago, and indorsed:

“Proposal for excavating a portion of the Main Drainage Channel will be received by the Clerk of the said Sanitary District at Room H, Rialto Building, Chicago, Ill., until 12 M. (standard time) of Wednesday, the 18th day of April, 1894, and will be publicly opened by the said Board of Trustees at the regular meeting held that day, or at a special meeting called for that purpose.

The work for which the said tenders are invited is the excavation of the portion of the Main Drainage Channel for the said Sanitary District, known as Contract Section one (1), extending from Station 733 to Station 800, and consists in all of about 459,724 cubic yards of rock, of about 1,662,476 cubic yards of earth, the building of 60,188 cubic yards of rubble walls, and 1,154 square yards of slope paving.

Each proposal must be accompanied by a certified check or cash to the amount of \$5,000.

All certified checks must be drawn on some responsible bank doing business in the City of Chicago and be made payable to the order of the Clerk of the Sanitary District of Chicago. Said amount of \$3,000 will be held by the Sanitary District until all of said proposals have been canvassed and contracts awarded and signed, the return of said check or cash to the bidder to whom said work shall have been awarded being conditioned upon his appearing within ten days after notice of such award being given, with bondsmen, and executing a contract with the Sanitary District for said work so awarded, and giving a bond

satisfactory to the said Board of Trustees for the fulfillment of the same in the amount of \$100,000.

All proposals must be made upon the blank forms furnished by the Sanitary District and must give the price for each separate item of work.

The bids will be compared on the basis of the Engineer's approximate estimate of quantities, which will be furnished with copies of the specifications.

No proposal will be considered unless the party making it shall furnish evidence satisfactory to the Board of Trustees of his ability to do the work, and that he has the necessary pecuniary resources to fulfill the conditions of the contract, provided such contract shall be awarded him.

Bidders are required to state in their proposals their individual names and places of residence in full.

Specifications and plans may be seen at the office of the Chief Engineer, Rialto Building, Chicago, Ill.

The said Board of Trustees reserves the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,

By FRANK WENTER,

*President of its Board of Trustees.*

Attest:

THOS. F. JUDGE,

*Clerk.*

CHICAGO, Ill., February 10, 1894."

The following are

#### THE SPECIFICATIONS:

"THE SANITARY DISTRICT OF CHICAGO. Contract and specifications for Section one (1), of the Main Drainage Channel in the Valley of the Desplaines River, extending from Station 733 to Station 800.

*This Agreement*, Made and entered into this ..... day of ..... A. D. 189.., by and between the Sanitary District of Chicago, of the first part, and ..... of ..... in ..... of the second part.

A—

WITNESSETH: That the said party of

the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part, by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, explosives, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete excavation and entire removal of earth, rock, glacial drift and other material, from that portion of the said Main Drainage Channel, known and distinguished by the specifications herein contained, and the plans accompanying them, as Section one (1), together with the building of all collateral works, which by the terms of this contract are included in the same. Said section to be entirely completed and prepared ready for inspection as provided for in Section 27 of an act of the Legislature of the State of Illinois, entitled "An act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers," approved May 29, 1889, in force July 1, 1889.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and such assistants, superintendents and inspectors as the Chief Engineer may appoint, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his assistants and inspectors shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit, and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Whenever the words "Sanitary District" are used in this contract they shall be un-



derstood to mean the Sanitary District of Chicago as represented by the Board of Trustees or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties entrusted to them.

Whenever the word "Contractor" is used herein it shall be understood to mean the person or persons, or copartnership or corporation entering into the contract as party of the second part.

The maps, plans and profiles hereto attached are made part of this contract, but are subject to such modifications as are herein provided for.

#### SPECIFICATIONS.

D—

1. *Location*—The work covered by and included in these specifications is the excavation of that part of the Main Drainage Channel and the building of certain collateral works for the Sanitary District of Chicago located between a point 700 feet (more or less) northeasterly of the Willow Springs road in Section 32, Township 38 North, Range 12 East of the Third Principal Meridian in Cook County, Illinois, and a point in Section 6, Township 37 North, Range 12 East of the Third Principal Meridian in Cook County, Illinois, as the same has been located by the Engineer of this District and adopted by action of the Board of Trustees of the said District; and as shown upon the accompanying plans marked "A, B, C and D."

2. *Section*—This portion of the work is designated and known as Contract Section No. 1 and extends from the station on center line designated as 733 to the station designated as 800, a distance of 6,700 feet. In addition to the Main Channel herein described certain subsidiary work such as levees, roadways and foundations herein-after more particularly described must be built.

3. *Grade*—The grade line at the bottom of said Main Channel at the station designated 733 shall be 26.1825 feet below the datum established by the Illinois and Michigan Canal Trustees in 1847, and shall slope thence uniformly at the rate of 0.025 of a foot vertical to 1,000 feet horizontal to

Station 740 where the elevation shall be 26.2 feet below datum. From thence the slope shall be uniformly at the rate of 0.05 of a foot vertical to 1,000 feet horizontal to Station 800 where the elevation shall be 26.5 feet below datum.

The Sanitary District reserves the right to change said grade by raising or lowering it, or by increasing or decreasing the slope, thereby increasing or decreasing the amount of excavation; provided, that said change shall in nowise affect the terms of this contract as to price, or entitle the said contractor to any compensation additional to the rate fixed by this contract, or render the Sanitary District liable for any damages whatsoever, direct or indirect. Provided, further, that the said change shall in no place affect the grade by an amount exceeding four feet; and that the Sanitary District shall notify the said contractor of any such change before any portion of said channel shall have been finished in conformity to the grade as hereinbefore specified.

4. *Dimensions of Cross Sections from Station Designated 740 to Station Designated 800*—The bottom of the finished channel shall have a width of 160 feet in the clear; where the channel is in rock the sides of said channel shall be kept vertical, except as to necessary offsets occasioned by the use of a channeling machine.

The sides of the rock channel are to be worked out with a channeling machine from top to bottom, the channels being cut ahead of the blasting. In doing this the bottom of each cut of the machine is to be made to a uniform level above the grade, and each succeeding one offset six inches from the one just preceding. The contractor will be allowed to work the rock in one or more stopes, at his option, so far as concerns the main portion of the width of the channel, but in case he elects to work the face in stopes having a greater height than the reach of the channeling machine in depth, then the blast holes are to be so disposed as to effectually prevent any blast from breaking or shattering the rock beyond the sides of the prism of the channel, which are to be left as smooth and solid as can be obtained with a skillful and proper use of a channeling machine.

In determining the width of the channel at the top of the rock, the necessary offsets



made by the operation of the machine are to be allowed for. Provided, that where the depth of the rock does not exceed twelve feet there shall be but one reach or cut of the channeling machine made, and that when its depth is over twelve feet, and not greater than twenty-four feet, there shall be but two cuts made; and that nowhere is there to be more than three cuts made for the whole depth of the rock excavation.

Where the channel is partly in earth and partly in rock, the earth shall be so excavated as to leave a berm on top of the rock equal to three-eighths ( $\frac{3}{8}$ ) of the depth of the rock surface below a level five feet above datum; provided that the berm shall be in no event less than five feet; and provided further, that where the section is entirely in earth the additional width at bottom shall conform to the above rule; and provided also, that at the level of five feet above datum the berm shall not be less than ten feet, with a slope toward the channel of one-half foot. In all cases the earth shall be taken out with the least slope which it is found can be safely maintained until the retaining walls are built, and as may be directed by the Chief Engineer from time to time.

5. *Retaining Walls from Station Designated 740 to Station Designated 800*—Wherever the top of the rock at the sides of the channel is below a level of five (5) feet above datum, the sides of the rock are to be walled with dry rubble masonry as soon as practicable after the channel is opened, provided suitable stone can be found in the excavation on said section which will conform to the specifications for dry rubble as follows:

If the bottom of the channel is in earth, or glacial drift, the retaining walls shall be founded upon a footing made in a trench dug not less than one foot below grade and as much deeper as may be directed by the Chief Engineer, said footing course to project twelve inches beyond the face of the wall. If the bottom of the channel is in rock, the retaining walls are to be founded upon the surface of the rock. Before beginning the construction of the wall the surface of the rock is to be cleared of earth and foreign substances, and all loose and soft rock is to be removed for the full width of its base, that the wall may be

founded upon a clean, solid stratum. If this stratum of natural rock inclines towards the Main Channel with such an inclination and in such a manner as, in the opinion of the Chief Engineer, to render the footing of the wall liable to slip on the same, then the contractor shall excavate the top surface of the rock parallel with and beneath the proposed wall in accordance with the directions of the Chief Engineer, so as to effectively remove all liability of slipping. The walls in all cases are to be built to a height of five feet above datum. Their thickness at the top shall be four (4) feet, and at the bottom they shall have a thickness equal to one-half of their total height; provided that their thickness at the bottom shall never be less than their top thickness plus their total batter. At no point is their thickness to be less than one-half their height. The back of each wall is to be built in vertical planes with offsets, as shown on plans marked "D."

The bottoms of the walls shall be fair with the sides of the channel. The tops of the walls on different sides of the channel are to be 83 feet from the center line of the channel, making a distance apart in the clear of 166 feet, or otherwise, as directed by the Chief Engineer.

The retaining walls are to be built of stone taken out of the excavation, those of the largest size and the most regular rectangular shape being selected for the faces and for main binding stones; the face of each wall to be laid true to line, the stones being scabbled and carefully placed in a firm position on their natural quarry beds without the use of spawls or small stone in their joints. The walls are to be laid in courses not less than twelve inches nor more than thirty inches in thickness, no stone being used in the face less than twelve inches in thickness, and whose depth and width is less than twice its thickness, each course being carried through the whole thickness of the wall before another course is begun. In laying each course the larger stones are to be carefully placed in position, covering the whole surface of the wall in such manner as to break joints with the larger stones of the preceding course, thereby thoroughly binding the wall into a solid mass; all spaces between the larger stones to be filled with smaller ones, which shall be reduced to such size with a hammer that all the larger interstices and un-

even places shall be entirely filled, and an even and uniform bed prepared for the succeeding course. Only selected stones of a size sufficiently large to cover the whole thickness of the wall are to be used for the top course.

The spaces between the back of the walls and the slope of the excavation are to be filled by the contractor with broken rock or gravel taken from the excavation. The surface of the back filled material when finished to be inclined toward the wall at the rate of one vertical to ten horizontal, unless otherwise directed by the Chief Engineer. Where the Main Channel runs through the quarries or depressions of any kind which are lower than the top of the walls, the whole space shall be filled from the retaining walls to the sides of the depressions.

6. *Dimensions of Cross-sections and Retaining Walls from Station Designated 733 to Station Designated 740*—Between Stations designated 733 and 740 the dimensions of cross-sections and retaining walls shall be as shown on plan marked "C;" otherwise, the construction of the Main Channel and retaining walls between these stations shall be as specified elsewhere in these specifications.

7. *Retaining Walls, Laid in Cement Mortar*—The Sanitary District may order, and if so ordered, the contractor shall construct a random rubble wall laid in cement mortar in lieu of the dry wall above specified. The preparation of the foundations of said cement wall shall conform to the requirements stipulated for dry rubble walls. Sand used to be coarse, clean and sharp, free from loam and pebbles.

*Cement*—The best American hydraulic cement shall be used, brand and quality to be subject to approval by the Chief Engineer, who shall from time to time cause such tests to be made as may seem to him proper for determining the quality of the cement which is shipped for use in the work. The development of tensile strength shall be 100 pounds per square inch after having set seven days. The contractor shall keep on hand a supply of cement equal to the average consumption in the work during a period of ten days, and it shall be protected against rain or dampness, and so stored as to make the procurement of samples for testing easy. All lumpy, dirty or damaged cement shall be

rejected; also damaged or short weight packages.

*Mortar*—The mixture shall be of sand and cement in equal parts. The sand and cement shall be thoroughly incorporated with each other before water is added. All mortar used shall be freshly mixed in clean boxes. No hard or partially set mortar shall be used. Water for mixing shall be clean. In laying the wall care shall be taken to secure bond by proper use of headers and stretchers, so far as the stone available for the work will admit, but the wall shall be so thoroughly slushed with cement mortar as to insure the filling of all interstices and the development of a monolithic mass so soon as the mortar shall have set. Stone used shall be sound and clean.

The wall shall be pointed with the specified mortar throughout before acceptance; all joints shall be raked out to a depth equal to three times their width to receive pointing. Work on cement masonry walls to be begun after the period of freezing in the spring, and be suspended before freezing begins in the fall.

The walls shall conform to the dimensions elsewhere specified herein. The faces of the walls shall conform to the batter specified, the stones being generally bedded in planes approximately perpendicular to the faces.

Weeping holes shall be left in the walls every fifty feet at an elevation about two feet below the datum. These holes shall not exceed thirty-six square inches of cross-section.

*Bridge Piers*—And further, the contractor shall build and construct all of the masonry for pivot pier, and abutment for pivot bridge across the Main Channel on the line of the Willow Springs road, of the same class of cement masonry prescribed for retaining walls, and of such height and dimensions as shall be determined and prescribed by the Chief Engineer, and as shown on plan "C," it being understood that the mass of masonry so formed is to become the base or foundation for masonry of a higher grade above the ground line.

7a. *Slope Paving*—The sides of the Main Channel between the stations designated 733 and 734+40 shall receive slope paving as indicated in plan "C," to a thick-



ness not less than 18 inches. This slope paving shall be made of rocks weighing not less than 50 pounds, and shall be hand placed, the largest rocks being placed nearest to the base of the slope.

7b. *Clearing and Grubbing*—The contractor will be required to remove all trees, stumps, buildings, fences, or other incumbrances within 150 feet of the center line of the channel, or that may be in the way of any collateral or subsidiary work herein specified. All such material of value shall be the property of the contractor, and all worthless material shall be disposed of as directed by the Chief Engineer. The cost of this work shall be included in the prices for excavation as hereinafter stated.

8. *Levee*—The said contractor shall build at his own cost and expense all or any levees which may be necessary to protect the work, provided for in this contract, during the progress of the same. And should flooding occur either before or after the building of any such levees, any and all expenses and damages to which he may be put shall be borne by the said contractor.

The contractor shall construct and complete the levee along the Desplaines River between the east side of the Willow Springs Road and the levee running westerly to the end of the section. This work shall be on the lines shown on plans "A" and "B."

And further, the contractor shall construct and complete a levee from the east side of the Willow Springs Road eastward on the lines shown on plan "A" to or near the station marked 710, as may be directed by the Chief Engineer. The minimum volume of material to be placed in this levee to be 150,000 cubic yards, and the maximum volume to be 250,000 cubic yards, as the Chief Engineer may direct. A trestle has been erected at the northerly margin of the top of the levee, ready to receive railroad ties and track, and appliances, to be used in delivering the material. The contractor may use this trestle, but must make all necessary repairs to it, and do any strengthening of it which he may deem necessary, and otherwise maintain it at his own expense. If he should not use the trestle in any part of the work, or if the trestle should be broken down in the course of the work, or should other methods of doing the work than using the trestle be adopted, then the contractors must bear all

expense resulting from the presence of the trestle and finish the levee in a manner free from projecting timbers, or timbers running transversely through it.

All levees in the section shall be finished so that they shall be twenty feet wide at the top and shall have side slopes of two horizontal to one vertical toward the river, and one and one-half horizontal to one vertical from the river.

And further, in addition to the material which may be needed for the levees specified the contractor shall deliver, upon requisition by the Chief Engineer, at some point or points in the levee not exceeding 3,000 feet east of the Willow Springs road, additional material suitable for levee construction, said material to be unloaded and deposited as directed by the Chief Engineer. The quantity of such material not to exceed 150,000 cubic yards.

All the material used in the levees shall be "glacial drift" suitable for the purpose and shall be taken from the westerly end of the section, unless the consent of the Chief Engineer be given otherwise.

The levees shall be water tight. All levees existing in Section No. 1, which have not heretofore been properly revetted, as well as those to be constructed, shall be surfaced on the top and on the slopes toward the river with loose rock or other suitable hard material, the thickness of such surfacing to be not less than one foot.

The material delivered east of the Willow Springs road shall be paid for at the rate per cubic yard hereinafter named.

9. *Railway Changes*—Throughout such sections of the work as may require a change in location of any railway, the contractor shall grade a double track road-bed with material from the excavations hereinbefore specified, said road-bed to be thirty (30) feet wide on top with side slopes of one and one-half to one, and conforming in height and location and in other particulars to the plans of the Chief Engineer, as shown on plan "A," and the cost of any such work shall be included in the prices for excavation hereinafter stated.

10. *Disposition of Material*—The contractor, except as hereinbefore specified, is to dispose of all material to be excavated under the terms of this contract at his own



expense and in the most convenient manner, in waste banks on the right of way; provided, that the foot of the inner slope of said banks shall not be nearer to the edge of the Main Channel than 50 feet, measured at an elevation of 10 feet above datum, and that the foot of the outer slope shall not approach the margin of the right of way closer than ten feet.

No material shall be deposited to the north further from the Main Channel than the southerly edge of the top of the levee herein specified; the slopes next the Des-plaines River to be not steeper than  $1\frac{1}{2}$  horizontal to 1 vertical. It is provided that this shall not be construed to prevent any other disposition of the material with the consent of the Chief Engineer.

11. *Drainage*—The contractor is to provide all pumping machinery and operate the same at his own cost and expense during the time of excavation, and until the whole work is fully completed and inspected, as provided for in other sections of this contract. The contractor shall dispose of any water pumped in such manner as not to interfere with the operations of other contractors for the Sanitary District.

12. *Classification of Material*—All material excavated under the provisions of this contract is to be classified under one or the other of two heads, viz.: "glacial drift" and "solid rock."

Glacial drift shall comprise the top soil, earth, muck, sand, gravel, clay, hard pan, boulders, fragmentary rock displaced from its original bed, and any other material that overlies the bed rock.

Solid rock shall comprise all rock found in its original bed, even though it may be so loosened from the adjacent underlying rock that it can be removed without blasting.

13. *Quantity of Material*—A profile of the average surface of the ground approximately on the line of the Main Channel, and also of the supposed surface of the bed rock is shown on plan "B." These profiles, though approximately correct, do not purport to be absolutely so, and are only presented as approximations, as is also the schedule of quantities attached as an appendix hereto. The contractor is to take all risk as to variations of the total quantity of material excavated, as well as the

relative amount of glacial drift and solid rock.

14. *Highways*—All public roads, crossing or lying adjacent to the Main Channel, shall be kept open and unobstructed during the progress of the work. No interference with any public road will be allowed until a temporary or permanent road has been provided, under the direction of the Chief Engineer, which will permit safe and free travel. No interference will be allowed with any railway or canal until such time as other and proper provision for the operation of such railway or canal has been made.

And further, the contractor shall, at such time as the Chief Engineer may direct, at his own expense, raise the embankment of the Willow Springs road and complete the same to the grade and dimensions prescribed by ordinance of the Village of Spring Forest, passed November 23, 1893, (see Proceedings of the Sanitary District of Chicago, page 1614), viz.: Finished grade to be 20 feet above Chicago datum; roadway 30 feet wide on top; side slopes  $1\frac{1}{2}$  to 1; top dressing of gravel 9 inches at center, 6 inches at sides, between the bridge over the Illinois and Michigan Canal and the right of way of the Chicago, Santa Fe and California Railway.

And further, the contractor shall, at such time as the Chief Engineer may direct, make and maintain, at his own expense, a good and sufficient roadway on the east end of Section 1, at or near Station 733, connecting the tow-path of the Illinois and Michigan Canal with the bridge across the Des-plaines River for use during the time that the Main Channel is being excavated and the bridge constructed for the permanent use of the Willow Springs road.

15. *Bridges and Structures*—The Sanitary District reserves the right to enter upon the said Main Channel and right of way, at any time or place, after or before the excavation has been completed, for the purpose of erecting, or preparing for the erection, of any bridge or bridges, or the building of any road or other structure, provided that such work of erection or preparation therefor shall not interfere with the contractor in carrying out the provisions of this contract. To this end the contractor shall make, or allow the Sanitary District to make, at the expense of

said Sanitary District, such changes in railroad tracks, buildings or structures, as will not interfere with the operations of said contractor, and that, in the opinion of the Chief Engineer, are necessary to the accomplishment of the purpose in view.

Said contractor is to make all necessary excavations in or adjacent to the Main Channel, and do all necessary grading, as directed by the Chief Engineer, that may be needed for the building of any kind of structure which the Sanitary District may wish to erect, and he is to be paid therefor at the rates hereinafter given for the Main Channel; provided, that in case a bridge is to be built having a center and a protection pier, the said contractor is to widen out the sides of the Main Channel, as may be directed by the Chief Engineer, and is to leave a mass of rock in the middle of the channel to serve as a protection pier of the dimensions and shape directed by the Chief Engineer, the sides of said mass being taken out with a channeling machine, as hereinbefore specified for the Main Channel.

16. *Explosives*—The contractor is to furnish all explosive compounds for blasting the material provided to be excavated under this contract; and, whereas, the storing, handling and use of so large an amount of explosive material requires the utmost care and discrimination, it is therefore understood and agreed that the said contractor shall arrange for the storage of all explosive materials at a distance not less than 600 feet from the work, or from any other magazine, or from any dwelling occupied for a habitation, and that not more than 5,000 pounds shall be kept in one place. It is further understood and agreed that said explosive material shall in no case be brought onto the work except when needed for the purpose of charging the blast holes, and then only in such quantity as is needed for the particular work in hand, and that none but skilled and careful men shall be employed in the handling or use of said explosives, and that no liquid explosive shall be used.

It is further understood and agreed that the ground surrounding all magazines shall be kept free of vegetable or combustible material for a radius of one hundred feet, and that their walls shall be made bullet proof, to a height of one foot above the con-

tained explosives, and that in no case shall they be made of brick or stone. It is also understood and agreed that such signals of danger, as may be directed by the Chief Engineer shall be given or displayed before the firing of any blast, and that the said contractor shall conform his acts to and obey all rules and regulations relative to the handling of explosives and the firing of blasts, for the protection of life or property, which may be made by the Chief Engineer from time to time.

17. *Measurement*—Measurement for all excavated material will be made in excavation by the cubic yard of twenty-seven cubic feet, based upon the survey and cross-section notes of the Chief Engineer.

All "glacial drift" excavated under the direction of the Chief Engineer, whether in or out of the Main Channel, will be included in the measured quantities.

"Solid rock" excavated within the limits of the dimensions and grade of the Main Channel, or of any river diversion channel, or for the placing of any bridge or other structure, as hereinbefore specified, or that shall be taken out by direction of the Chief Engineer, shall be included in the measured quantities; provided that nothing will be included for rock that comes out below grade in the excavation of any channel.

"Retaining walls" will be measured by their net cubical contents, as specified.

"Slope paving" will be measured by the superficial square yard of completed work.

Material delivered in or on the levee east of the Willow Springs Road will be measured the same as "glacial drift."

The prices given herewith are to include all work herein specified, as clearing and grubbing, levees for protection, pumping, roadways for working, back filling of retaining walls, and generally all work and material found necessary in prosecuting this contract.

18. *Extra Work*—All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Chief Engineer at the time such labor or material are furnished, or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work



that can be classified under any of the heads upon which price is fixed by this contract.

Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Chief Engineer shall fix such prices for the work as he shall consider just and equitable, and the contractor shall abide by such prices; provided he enters upon such work with full knowledge of the prices so fixed by the Chief Engineer, but if the contractor declines executing said work at the prices fixed by the Chief Engineer, then the Sanitary District may enter into contract with any person or persons for its execution, the same as if this contract had never existed; and if extra work, or work not provided for in this contract, is performed by the contractor before prices have been fixed for such work, then the Chief Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept of said prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with 10 per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

19. *Responsibility of Contractor*—All the work provided for in this contract is to be done in a skillful and workmanlike manner, under the direction and supervision of the Chief Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Chief Engineer to properly give lines and grades, and to measure the work from time to time.

All work will be subject to inspection by the said Chief Engineer and his said agents, and if not in accordance with the requirements of this contract, it is to be made good by the contractor.

The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to assign or sub-let all or any part of it, it being distinctly understood and agreed that the assigning or sub-letting of the work covered by this contract, or any part thereof, shall work a forfeiture of the contract at the option of the Sanitary District.

The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case there is a substantial failure on the part of the contractor to comply with the provisions of this contract as to progress and character of the work, or to comply with the provisions of this contract in regard to giving bonds for the performance thereof, the party of the first part may declare this contract forfeited; and in such case the reserve of 12½ per cent. herein provided for, and any other retained percentage, shall be forever retained by the said party of the first part as liquidated damages for such failure of second party to so prosecute or complete said work.

20. *Changes in Plan*—In addition to the reservations hereinbefore made, the Sanitary District reserves the right to make alterations in the line, grade, plan, form, dimensions, or material of the work herein provided for, either before or after the beginning of construction; provided, that if alterations are made, the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of the work to be done they shall not constitute a claim for damages, or for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of any change of plan must be given the contractor in writing. And it is expressly agreed that no alterations, or additions, or extra work are to be paid for unless directed in writing.

21. *Tools*—The contractor is to furnish



all the tools of every kind and description, including pumps, cars and track, necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, buildings and material of all kinds from the right of way of the Sanitary District.

22. *Precautions*—Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, or which in the judgment of the Chief Engineer shall be necessary, shall be taken by the contractor.

23. *Workmen*—The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Chief Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

And further, the contractor shall provide and employ, upon the order of the Chief Engineer, men, teams, tools and machinery suited to the work, in such number and quantity as may, in the judgment of the said Chief Engineer, be necessary for carrying on and completing the works in conformity with the time limit stated by this contract. And further, it is understood and agreed that the Chief Engineer may order the prosecution of any particular portion of this work which, in his judgment, needs special expedition, and it shall be so done as directed by him.

E—

*Damages*—If any damages shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands or to any property adjoining, or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, for which the contractor herein is legally liable, the engineer shall have the right to estimate the amount of said damage and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damage shall be deducted from the money due said contractor under this contract.

Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any

act or doing of himself or his employes, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any injuries or damages received or sustained by any person or persons by or from said contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any failure or negligence in guarding or protecting the same; or by or on account of any act or omission of said contractor, his agents or employes; and the said contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suits or claims for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

F—

*Sanitary District Law*—The said contractor hereby agrees to carry on all the work provided for in this contract, in strict conformity to the requirements of the law under which the Sanitary District of Chicago is organized, entitled "An act to create Sanitary Districts and to remove obstructions from the Desplaines and Illinois Rivers"; approved May 29, 1889, in force July 1, 1889, which provides in Section 11, among other things, that "No person shall be employed on said work unless he be a citizen of the United States or has in good faith declared his intentions to become such citizen. In all cases where an alien after making his declaration of intention to become a citizen of the United States shall, for the space of three months after he could lawfully do so, fail to take out his final papers and complete his citizenship, such failure shall be *prima facie* evidence that his declaration of intention was not made in good faith; and that eight hours shall constitute a day's work."

G—

*Time*—The contractor agrees to begin work within fifteen days after the execution of this contract. He agrees to carry it on at such points, and in such order of procedure, as the Chief Engineer may direct.

All the Main Channel work provided to be done under this contract shall be completed and ready for inspection on or before the 31st day of May, of the year 1896. All levee work to be completed on or before October 1, 1894.

The work done each month shall not be less than such proportion of the whole work as one month bears to the total number of months agreed upon for the completion of said work, provided that the time from the date of this contract to June 1, 1894, shall be considered as one month, and the last two months before date of completion, as one month, and, provided further, that this rate shall not be required if at any time the aggregate work done exceeds the total proportion due to the time that has passed since May 1, 1894; and always provided that the Sanitary District shall not be obligated to make payment in excess of the above monthly proportion; and said May 1, 1894, is hereby fixed as the date from which all progress estimates shall be made.

H—

*Price*—In consideration of the said work being carried on and completed in time and manner as specified, the said party of the first part agrees to pay to the said party of the second part, and the said party of the second part agrees to receive and accept as full compensation therefor, including the furnishing by him of all necessary materials, tools, labor, machinery and appliances:

For each cubic yard of rock excavation the sum of ..... dollars (\$....).

For each cubic yard of glacial drift excavation, ..... dollars (\$....).

For each cubic yard of dry rubble retaining wall, ..... dollars (\$....).

For each cubic yard of retaining wall laid in cement mortar, ..... dollars, (\$....).

Additional price for each cubic yard, due to overhaul, for material placed in or on levee east of Willow Springs Road, ..... dollars (\$....).

For each square yard of slope paving, ..... dollars (\$....).

I—

*Time and Manner of Payment*—It is agreed by the party of the first part, that

on or before the 10th and 25th days of each month, during the progress of the work, and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of  $87\frac{1}{2}$  per cent of the contract price of the approximate amount of work done during the previous half month, upon written certificates from the Chief Engineer that such approximate amount of work has been done during that period,  $12\frac{1}{2}$  per cent being reserved until the completion and acceptance of the whole work, provided the work has been done in all particulars in conformity with this contract, and to the satisfaction of the Chief Engineer.

J—

*Grading of Prices*—It is hereby agreed by the said party of the second part that if his manner of conducting the work is such that at the time of making any progress estimate a markedly greater proportion of the top material has been excavated than of the bottom material, then the Chief Engineer shall in making such estimates, ascertain what amount has been excavated up to that time of any material lies above, and what below, a horizontal plane dividing the mass of said class of material into equal parts; and if the upper portion exceeds the lower, then the total amount of material found to have been excavated previous to the time of making the estimate shall be reduced by 10 per cent. of said excess, and estimates or certificates issued on the remainder, with the percentage deductions provided for in the preceding Section I.

K—

*Certificate*—On all the work provided for in this contract being completed, in accordance with the contract, and to the full satisfaction of the Chief Engineer, and on its being inspected by him and a certificate made by him setting forth the amount of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said second party by the said certificate of the said Chief Engineer, including the  $12\frac{1}{2}$  per cent. reserve.

L—

*Failure to Complete*—It is further agreed by the said party of the second part that i



the work to be done under this contract shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or, if at any time the Chief Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not executing said contract in good faith, the said party of the first part shall have the power to notify said contractor to discontinue all work, or any part thereof, as may be designated by said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as the said Chief Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing said Chief Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work shall be charged to the said contractor, and any moneys that may then be due, or may at any time thereafter become due to said contractor under and by virtue of this contract, shall be applied by first party to the payment of such cost, so far as same shall suffice therefor, and the remainder of the cost of so completing said work, if any, shall be paid by said contractor to first party on demand.

M—

*Payment of Laborers*—Said contractor shall pay the laborers employed by him promptly at regular intervals, and at least twice each month, and shall not pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States. And if at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed, and in manner aforesaid, or for material furnished upon said work, then the party of the first part shall have power to pay for such labor or such material out of any money or moneys that may be due

to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor.

In any such case the party of the first part is hereby authorized and empowered by the said party of the second part to ascertain the amount or amounts due or owing from said contractor to any laborer or laborers, or to any person for material furnished, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said contractor, and the amount or amounts so found by the said party of the first part to be due and owing to said laborer or laborers, or to said material men, shall be final and conclusive as against said contractor, and may thereafter be paid over by the said first party to such laborer, laborers or material men.

N—

*Contractor's Bond*—The contractor shall furnish a bond in the sum of one hundred thousand (\$100,000) dollars, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract, and should the sureties on said bond at any time fail financially, or be, in the opinion of said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten days notice thereof in writing, require said contractor to furnish a new or additional bond in the place of the bond so having become insufficient or worthless.

O—

*Final Payment*—The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as



may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

P—

*Health Regulations*—Said party of the second part agrees to introduce among .....employees, such regulations in regard to cleanliness, the care of dwellings and premises and the disposition of garbage and offal, as shall conduce to their health and tend to prevent the inception and spread of contagious and infectious diseases among them, to make provision for an ample supply of suitable drinking water, and to take such means as shall effectually prevent the creation of a nuisance on any part of the right of way of said Sanitary District or adjacent thereto, and as may be directed by the Sanitary Inspector of said Sanitary District.

IN WITNESS WHEREOF, On the day and year first above written, the said Sanitary District of Chicago has caused this Agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set..... hand.. and seal..

THE SANITARY DISTRICT OF CHICAGO.  
[SEAL.]

By .....  
President.  
Attest: .....  
Clerk.  
..... [SEAL.]  
..... [SEAL.]  
..... [SEAL.]  
..... [SEAL.]”

The following is the  
CONTRACTOR'S BOND:

“Know all men by these presents, That we, .....

.....  
.....  
of .....  
.....  
are held and firmly bound unto the Sanitary District of Chicago, in the penal sum of ....  
.... dollars, lawful money of the United States, for the payment of which sum of money well and truly to be made, we bind ourselves, our heirs, executors and administrators, jointly and severally, firmly by these presents.

Sealed with our seals and dated this .... day of .... A. D. 189..

*The Condition of the above Obligation is such,* That, whereas, the above bounden .....  
.....  
ha.. entered into a certain contract with the Sanitary District of Chicago, bearing date the .... day of .... A. D. 189.., for excavating Section one (1) of the Main Drainage Channel of the Sanitary District of Chicago, and building certain collateral works in connection therewith, said section extending from section designated 733 to section designated 800 in Cook County, Illinois, as set forth in said contract.....

Now, if the said .....  
.....  
shall in all respects, well and truly keep and perform the said contract on..... part, in accordance with the terms thereof, and the plans and specifications therein contained and referred to, and in the time and manner therein prescribed, and further shall indemnify, keep and save harmless the Sanitary District of Chicago against all liabilities, judgments, costs, damages and expenses, which may in anywise come against said Sanitary District, in consequence of the granting of such contract, or which may in anywise result from the carelessness or neglect of said.....  
.....  
agents, employes or workmen, in any respect whatever, or which may result on account of any infringement of any patent, by reason of the materials, machinery, device or apparatus used in the performance of said contract, and, moreover, shall pay to said Sanitary District any sum or sums of money determined by the Chief Engineer to be due said Sanitary District, by reason of any failure or neglect in the per-

formance of the requirements of said contract, and shall pay all claims and demands whatsoever, which may accrue to each and every person, who shall be employed by ..... in or about the performance of said contract, then this obligation to be null and void, otherwise to remain in full force and effect.

And it is hereby expressly understood and agreed, and made a condition hereof, that any judgment rendered against said Sanitary District of Chicago, as aforesaid, in any suit for damages occasioned by the carelessness or neglect of said ..... or ..... agents, employes or workmen, in the premises, when notice of the pendency of such suit shall have been given said ..... shall be conclusive against each and all parties to this obligation, as to amount, liability, and all other things pertaining thereto.

.....[SEAL.]

.....[SEAL.]

.....[SEAL.]

.....[SEAL.]

Approved.....189..

.....

Clerk."

(With affidavits and schedules.)

The following is the

# FORM OF PROPOSAL:

*"To the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The undersigned hereby certif ..... that ..... have examined the plans on file in the office of the Chief Engineer of the Sanitary District of Chicago, the annexed specifications and forms of contract for the excavation of Section One (1), a portion of the Main Drainage Channel of said Sanitary District as herein described, and propose ..... to do all the work and to furnish all material, tools, explosives, labor and all appliances and appurtenances necessary to the full completion of the same, at the rates and prices for the said work, as follows, to-wit:

Contractor is to furnish and operate pumping plant and to provide all other appliances for doing the work, and to dispose

of all material in spoil banks, as shown on the plans.

Section No. 1— Cents.

Glacial drift, per cubic yard..... —

Solid rock, per cubic yard..... —

Retaining wall dry, per cubic yard... —

Retaining wall in mortar, per cubic yard..... —

Additional price per cubic yard, due to overhaul, for material placed in or on levee east of Willow Springs road..... —

Slope paving, per square yard..... —

The above proposals are based upon the conditions and stipulations made in the advertisements inviting proposals for said work, and in accordance with the contract, specifications and plans for the same on file in the office of the Chief Engineer of the said Sanitary District, and should the said Board of Trustees award any of said work to the undersigned, then .... agree to .... enter into contract for the same and to do the work as specified.

In accordance with the requirements of said advertisement there is deposited herewith the sum of ..... dollars, which, under the terms of the advertisement, entitle .... to bid on said work, the same to be refunded to .... upon the faithful performance of all the conditions stipulated in the said advertisement for proposals.

It is further agreed that should the within proposal for excavating said section of said Main Drainage Channel be awarded to .... and ..... should fail or neglect to enter into contract with the said Sanitary District in the time and in the manner required by the said advertisement for proposals, and to furnish bonds as therein required to the satisfaction of the said Board of Trustees, then the said sum of ..... dollars, deposited herewith, shall become forfeited to the Sanitary District as liquidated damages.

Name.....

Address.....

Name.....

Address.....

Name.....

Address.....

Name.....

Address.....

NOTE—Companies or firms bidding must give the individual names and addresses of persons comprising such firms.

Received from the Sanitary District of Chicago the sum deposited with the above proposal, the same being.....dollars.

CHICAGO.....189...

APPROXIMATE QUANTITIES ON SECTION  
NO. 1 UPON WHICH BIDS ARE  
ASKED.

	Cubic Yards.
Glacial drift.....	1,662,476
Solid rock.....	459,724
Retaining wall, dry.....	60,188
Retaining wall, laid in cement...	60,188
Slope paving.....	1,154

Overhaul price on a minimum quantity of 150,000 cubic yards placed in or on levee east of the Willow Springs road."

CLERK TO ADVERTISE FOR RE-LETTING  
OF SECTION 1.

Mr. Cooley, seconded by Mr. Eckhart, moved that the Clerk be authorized and directed to advertise as provided in the report concerning the re-letting of Sections 2, 3 and 4, (August 2, 1893, page 1367 of the Proceedings), for the re-letting of Section 1 of the Main Channel under the specifications just adopted, the bids for the same to be received up to Wednesday, April 18, 1894.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7.) Nays—None.

Upon which result the President de-

clared the motion carried, and the Clerk authorized and directed to advertise as provided in the report concerning the re-letting of Sections 2, 3 and 4 (August 2, 1893, page 1367 of the Proceedings) for the re-letting of Section 1 of the Main Channel, under the specifications just adopted, the bids for the same to be received up to Wednesday, April 18, 1894.

UNPAID TIME-CHECKS OF CONTRACTORS.

The Clerk presented a communication from the Lemont State Bank, of Lemont, Illinois, with reference to time-checks in their hands issued by certain contractors on Sections 7, 8 and 9, and yet unpaid.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the communication be referred to the Committee on Judiciary and the Attorney, without being printed.

The motion prevailed unanimously, and the communication was so referred.

OFFICES TO BE CLOSED FEBRUARY 12,  
1894.

The President stated that he had issued an order that the offices of the District be closed on Monday, February 12, 1894, the same being "Lincoln's Birthday"—a legal holiday.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the action of the President in the above matter be approved.

The motion prevailed unanimously, and it was so ordered.

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,  
Clerk.



PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES,

—OF THE—

SANITARY DISTRICT OF CHICAGO.

FEBRUARY 14, 1894.

OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and ninth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, February 14, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8) members, were present.

MINUTES.

The minutes of the regular meeting, held February 7, 1894, were approved as

printed, on motion of Mr. Kelly, seconded by Mr. Boldenweck.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

Hiram A. Miller, (traveling) .....	\$10 25	
Hiram A. Miller, (traveling).....	20 79	
		\$ 31 04

LAW DEPARTMENT.

P. F. Pettibone & Co., (stationery).....	\$ 11 35	
Cameron, Amberg & Co. (stationery).....	1 68	
H. Schultz & Co. (paper boxes).....	4 20	
Bennett, Gear, Valentine & Brady, (reporting Cook et al. case) ..	560 25	

Chicago Telephone Co. (toll service).....	\$ 3 00
Orrin N. Carter, (post- age stamps).....	10 00
Orrin N. Carter (ex- pense).....	177 95
Ebin J. Ward, (ex- pense).....	5 59
	<hr/> \$774 02

## POLICE DEPARTMENT.

Edward Williams, (ex- pense).....	\$ 31 04
Grand total.....	<hr/> \$836 10

Mr. Boldenweck seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District, for the week ending February 10, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, Feb. 14, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending February 10, 1894, as the same have been reported to me:

Clerical Department.....	4
Treasury Department.....	1
Law Department....	8
Police Department.....	37

Total employes..... 50

Up to this writing no report has been received from the Engineering Department as to the force employed therein.

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

APPROVAL OF WORK ON EXTRA TEST PIT  
ON SECTION G.

The Clerk presented a report from the Chief Engineer, asking that the Board approve the digging of an extra test pit on Section G, done as set forth in the report; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be ordered printed and placed on file, and the action of the Chief Engineer, with reference to an extra test pit on Section G, done as set forth in the report, approved.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, and the action of the Chief Engineer, with reference to an extra test pit on Section G, done as set forth in the report, approved.

The following is

## THE REPORT:

“CHICAGO, Feb. 14, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—You are respectfully requested to approve the digging of an extra test pit at Stations 382+89, Main Channel, in Section G in accordance with the agreement with J. R. Davis & Son, dated July 5, 1893.

Very respectfully,

(Signed) ISHAM RANDOLPH,  
Chief Engineer.”

ADDITIONAL PATROLMEN AND NEW  
POLICE STATION FOR CHICAGO  
DIVISION.

The Clerk presented a report from the Marshal, accompanied by three enclosures, with reference to the appointment of additional patrolmen and the erection of a new police station for the Chicago Division of the right of way, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report, with all enclosures, be ordered printed and referred to the Joint Committee on Health and Public Order and Finance.

The motion prevailed unanimously, and the report, with all enclosures, was ordered printed and so referred.

The following is

THE REPORT, WITH ENCLOSURES :

"CHICAGO, Feb. 13, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The letting of the contracts and beginning of the work of construction on the Main Drainage Channel of the Sanitary District, between Section "F" and Bridgeport, has made the consideration of the subject of policing the territory through which it passes a necessity. Some time since I called upon Mr. Brennan, General Superintendent of Police of Chicago, and asked him to police that portion of the territory lying inside the city limits, thus hoping to save the Sanitary District the responsibility and expense of that part of the work. Mr. Brennan then informed me that he had no more right to grant this request than he would have to grant a similar request from either of the park systems that are now required to furnish their own police protection. In order that this decision might become of record, on January 23rd, I addressed a communication to Mr. Brennan, a copy of which together with his reply and the opinion of the Corporation Counsel of the city, I hereto attach. As from this it appears to be incumbent upon the Sanitary District to provide police protection within the entire territory in question, I would most respectfully suggest that you authorize the erection of a police station at about the intersection of Thirty-ninth street and West Forty-eighth street, or just west of the Belt Line road, that the station be the same in size and construction as those already built, that to insure the building of this station at a price not greater than the cost of the last one and further to be enabled to get the material on the ground before the frost is out (which is an important item), that the erection of the building be commenced without delay. I would also suggest that inasmuch as this new police district is larger than either of the others and more convenient of access to vicious and mischievous people, thus requiring more men to properly do the work, that you authorize the appointment of ten additional patrolmen, and the promotion of one patrolman to the rank of Sergeant; that you also authorize the purchase of the necessary bedding, station supplies and police equipage, to furnish the new station and attaches the same as all the others are furnished.

(Signed) EDWARD WILLIAMS,  
Marshal."

(Enclosing three letters.)

(Enclosures).

"CHICAGO, Jan. 23, 1894.

*Michael Brennan, Esq., General Superintendent of Police, Chicago, Ill.:*

ESTEEMED SIR—Herewith I hand you copy of the law creating the Police District of the Sanitary District of Chicago. I do this that you may be fully advised of the police powers conferred thereby, with a view to determining what course shall be pursued in policing that part of the right of way and territory adjacent thereto, which lies inside of the corporate limits of Chicago. The right of way of the Main Drainage Channel enters the city at its west limits, between Thirty-first and Thirty-ninth streets, and terminates near Robey street, between the West Branch of the Chicago River and Thirty-first street, as per diagram slip enclosed. I desire to know whether you will assume police control of this territory, relieving the Police Department of the Sanitary District of Chicago from any care or responsibility in the matter. If unable or unwilling to do so, what rights or privileges will be accorded our department in the exercise of its functions within said territory without our being regarded as in conflict with your department. I also desire to know if, in the event of the Sanitary District furnishing its own police protection within the territory named, you will accept from us prisoners who may have been arrested, and allow us to prosecute them in the regular Police Courts of the city, as is done in case of prisoners arrested by your own men. Also, if, in the event of outbreak, strike, or any cause requiring the services of a considerable number of men, you will aid us by detail from the regular force, and, if so, whether it is your desire that the force so detailed shall act under your especial direction or under the direction of the Marshal of the Sanitary District.

An early and comprehensive reply to the foregoing would very greatly oblige,

Your obedient servant,

(Signed) EDWARD WILLIAMS,  
Marshal of the Sanitary District of Chicago."

(Two enclosures).

"CITY OF CHICAGO. }  
DEPARTMENT OF POLICE, Jan. 26, 1894. }

Capt. E. Williams, Marshal of the Sanitary District of Chicago:

DEAR SIR—I have your favor of the



23d inst., requesting information as to what course shall be pursued in the policing of that part of the right of way and territory of the Sanitary District within the city limits of Chicago. I have consulted our Law Department on this subject and do not know that I can state the case more plainly than is set forth by Mr. Reubens, our Corporation Counsel, a copy of whose opinion is herewith sent.

You will notice that 'I cannot undertake to relieve the Sanitary District police of any of the duties or responsibilities imposed upon them by law, in their territory inside the city limits.' Therefore, it will be necessary for you to arrange for policing that territory, but in case of necessity the regular police of the city shall be used to suppress violence there as elsewhere within the city limits.

Also, persons arrested by your men along the right of way shall be held at our police stations and tried at our Police Courts precisely the same as if the arrests were made by the city police.

This, briefly, is the substance of the opinion as I understand it.

Please let me hear from you.

Respectfully,

(Signed)

M. BRENNAN,

*General Superintendent."*

"CHICAGO, Jan. 25, 1894.

*To the General Superintendent of Police:*

SIR—I have considered the communication received by you from the Marshal of the Sanitary District of Chicago, and your request for my advice as to your duty in the premises, and reply as follows:

*First*—The powers of the police force of the Sanitary District are similar to those exercised by the regular police of the city, but by the statute under which they are appointed, when acting within the limits of the city, they act in aid of the regular police force, and are subject to the direction of the General Superintendent of Police.

*Second*—You cannot properly undertake to relieve the Sanitary District Police of any duties or responsibilities imposed by law upon them, but the direction of such Sanitary District police, being committed by law to you, when acting within the city limits, you may by general orders or regulations authorize the receipt into the city police prisons or places of detention of persons

arrested within the city by the Sanitary District police and they may be prosecuted in the Police Courts of the city precisely as if arrested by the city police.

*Third*—You may properly assure the Marshal of the Sanitary District that in the event of any outbreak or violence within the limits of the Sanitary District and the city, you will use your regular police force to suppress it.

In such case, all the police, whether officers of the Sanitary District or of the city, will be under your direction as General Superintendent of Police.

(Signed)

HARRY REUBENS,  
*Corporation Counsel."*

EXTRAS FOR TRESTLE ON SECTION D AND  
FOR ADDITIONAL LEVEE WORK  
ON SECTION B.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, recommending an allowance of \$1,000 to E. D. Smith & Co. as an extra for constructing the pile trestle on Section D and of 20 cents per yard to Heldmaier & Neu as an extra for about 2,000 yards of additional levee work on Section B; and the report was read.

Mr. Cooley, seconded by Mr. Russell, moved that the report be adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

The following is

THE REPORT:

"CHICAGO, Feb. 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On January 10, 1894, (page 1670 of the Proceedings) this Committee transmitted certain agreements in regard to changing the lines of division between Contract Sections D, E and F. The Committee neglected to state that as part consideration in the matter, E. D. Smith & Co., contractors for Section D, were to be allowed one thousand (\$1,000) dollars for constructing a pile trestle for

the purpose of filling in the marsh between their completed bank and the Calumet terminal, adjacent to the river. We now recommend that the expenditure, for the purpose stated, be authorized.

This Committee did, on October 25, 1893, (page 1528 of the Proceedings) recommend an allowance of 15 cents per yard on some 6,000 yards of material entering the levee on Section A, which was authorized by the Board. The Engineering Department did subsequently, after advising with the Committee, allow 20 cents per yard on some 2,000 yards additional on Section B, between stations 656 and 660, which the Committee has failed to report hitherto. We recommend that the same be authorized and approved.

Very Respectfully submitted,

(Signed) L. E. COOLEY.  
Chairman.  
WM. BOLDENWECK,  
B. A. ECKHART,  
W. H. RUSSELL,  
THOMAS KELLY,

*Joint Committee on Engineering and Finance."*

AGREEMENTS WITH AGNEW & CO. FOR  
EXTENSION OF TIME ON SECTIONS  
6 AND 7.

Mr. Cooley for the Joint Committee on Engineering and Finance, presented a report, with reference to and accompanied by two agreements in duplicate, allowing Agnew & Co. an extension of time (under certain conditions as provided in the report) before forfeiture of the contracts for Sections 6 and 7 of the Main Channel; and the report and accompanying agreements were read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the report and accompanying agreements, be adopted, ordered printed and placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute said agreements, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—seven (7). Nays—Mr. Cooley—one (1).

Upon which result the President declared the motion carried, the report and accompanying agreements adopted,

ordered printed and placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute said agreements on behalf of the District, as provided in the report.

The following is

THE REPORT, WITH ACCOMPANYING  
AGREEMENTS:

"CHICAGO, Feb. 14, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—By order of the Board of January 10, 1894, (page 1672 of the Proceedings) this Committee was instructed "to consider any necessary changes and stipulations" in reference to contract Sections 1, 5, 6, 7, 8 and 9, for which notice of intention to forfeit had been given by the Board on December 27, 1893, (page 1651 of the Proceedings) on account of failure to comply with the requirements of the contract in respect to progress and in other particulars.

On January 18, 1894, (page 1702 of the Proceedings) this Committee reported the necessary stipulations and agreements pertaining to the assignment of Sections 5, 8 and 9, which were completed on January 20, 1894, (page 1708 of the Proceedings) and January 24, 1894, (page 1715 of the Proceedings.) On February 10, 1894, (page 1733 of the Proceedings) the forfeiture of Section 1 recommended, and new bids ordered.

Your Committee now reports an agreement with Agnew & Company, by which they are permitted to continue provisionally on Sections 6 and 7. Certain evidences of ability to proceed with the work as required by contract are to be shown on Section six (6) in thirty days, and certain actual results thereon in sixty days; on Section seven (7) actual results are to be shown in thirty days. The District waives no right of summary forfeiture under the pending notice in case the spirit of the requirements are not fully met.

Certain stipulations have been matured by the Chief Engineer and Attorney, by which the clause of the latest contract in regard to payment of labor is included, and the specifications perfected where they fail to properly define and limit the work.

These additional specifications provide:

1. For the excavation of an additional width through the unstable material overlying the rock, when the same may



be necessary, and the building of a retaining dyke of broken stone. This is estimated as increasing the apparent cost by about \$24,000, but the actual cost in the absence of this work, would be much greater.

2. The provision of a berm of 100 feet through the unstable material, and 80 feet elsewhere, except on the full rock cross-section on all work to be done hereafter, without extra cost.

3. Completion of the levee to a prescribed width and section, an earth core to be placed therein where the same is deficient, and the face to be suitably revetted with broken stone at an estimated cost of \$7,500.

These several matters are set forth at length in the agreements with Agnew & Company in regard to Contract Sections 6 and 7, submitted herewith for the approval of the Board. Your Committee recommend that the President and Clerk be authorized and directed to execute the same on the part of the District.

With this report, all matters pertaining to the order of January 10, 1894, are disposed of for the time being, except certain claims for extras in connection with Sections 5, 8 and 9.

Respectfully submitted,

(Signed) B. A. ECKHART,  
WM. BOLDENWECK,  
THOMAS KELLY,  
W. H. RUSSELL,

*Joint Committee on Engineering and Finance.*

I am unable to concur in the foregoing for the reasons set forth in the report of this Committee on December 27, 1893, (page 1651 of the Proceedings).

(Signed) L. E. COOLEY,  
*Chairman."*

(Accompanied by two (2) agreements in duplicate).

#### AGREEMENTS:

"*This agreement, Made this fourteenth (14th) day of February, A. D. 1894, by and between the Sanitary District of Chicago, of the first part, and Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., of the second part, witnesseth: That,*

WHEREAS, Second party entered into

a contract with first party on the eighteenth (18) day of July, A. D. 1892, for the excavation of that portion of first party's Main Channel known as Contract Section six (6) and for the execution of collateral work connected therewith; and,

WHEREAS, First party, on the 28th day of December, A. D. 1893, served a notice upon second party declaring that there had been a substantial failure on their part to comply with the requirements of their said contract with first party, both as to the progress and character of the work done under said contract, and also, in not keeping the said work under their control, and that said notice was served upon them under the provisions of said contract for the purpose of laying the foundation for the forfeiture thereof; and,

WHEREAS, Second party has represented to first party that it will be able within sixty (60) days from date hereof to put the work on said contract section in such condition that the required monthly rates of progress thereon shall thereafter be made by them;

*Now therefore,* To the end that said work shall be no further delayed and that the required rates of progress may be made thereon as speedily as possible and certain modifications of the specifications of said contract being deemed desirable, the parties hereto, in consideration of the reciprocal promises herein contained, do hereby covenant and agree as follows:

*First*—Second party shall excavate on a line parallel with the Main Channel and on the northerly side thereof between the Bracken bank, at or near Station 1026, and the westerly end of said Section six (6), all muck or other soft or unstable material overlying the solid rock for a width of not less than 50 feet, measured from the edge of the channel at the surface of the solid rock or hard material, and in the trench so formed they shall deposit broken rock or other suitable material, forming an embankment which shall be eight feet wide on top at an elevation of seven feet above datum with the natural slope of said material as it leaves the dumps, being approximately 1½ feet horizontal to one foot vertical. In consideration of the execution of said work under the specifications to the satisfaction of the Chief Engineer of first party, first party will pay to second party for said embankment at the rate of sixty-five (65) cents per cubic yard, measured in its prism. Should first party



think it necessary, in order to protect the Main Channel from the inflow of soft material on the southerly side thereof, then second party will excavate the muck or soft material and build an embankment of such extent as the Chief Engineer may direct of the same character as that prescribed for the northerly side of said Main Channel and at the same rate of payment. All soft material taken from the Main Channel, unless otherwise directed by the Chief Engineer, shall be deposited on the northerly side thereof, beyond the embankment hereinbefore provided for and may be discharged into the old river channel until the same is filled up, but no spoil bank will be permitted closer than 100 feet from the northerly edge of the completed channel.

*Second*—Second party in the further prosecution of the work agrees to leave a berm or margin free from soft spoil or other permanent incumbrances, except as hereinafter provided, on each sides of the Main Channel. The width of this berm east of the Bracken bank to be eighty (80) feet, and west of said bank to be one hundred (100) feet. Wherever, prior to this agreement, the fifty-foot berm has been encumbered by spoil it shall be entirely removed by second party at their own expense; provided, that when the retaining wall shall have been built and properly backed up with broken stone or gravel, as set forth in the original specifications, then and not until then, second party may deposit broken stone or other stable material taken from the Main Channel, upon the reserved berm areas, provided that no material is placed nearer than fifty (50) feet to the shore line of the completed channel.

*Third*—Second party agrees to complete such portions of the river diversion levee on said section as do not already conform in all particulars to the specifications prescribed therefor, and will make the slope thereof next to the river diversion channel conform to the required cross-section, to-wit: to a height of eleven (11) feet above the grade established for the river diversion through the rock cut or same prolonged, a width of thirty (30) feet on top and slope toward the river of one and one-half ( $1\frac{1}{2}$ ) to one (1) carried down to the natural surface of the ground. Such portions of said levee as have heretofore been made to conform to the required grade, but have since from rains or other causes been washed away, settled or otherwise decreased in volume, shall be brought to

the required grade and shall be paid for by first party at the rate provided for in the original contract for the excavation of glacial drift, but such portions of said levee as have not heretofore been made to conform to the required grade aforesaid shall be completed at the cost of second party. Should first party so require, second party will revet the slope of the levee next to the river diversion channel, between Stations 1000 and 1050, with broken stone, taken from Section seven (7), to a thickness of not less than eighteen (18) inches, said revetment shall be handplaced with sufficient regularity to secure for it uniform thickness throughout and shall be carried up along the slope to the crest thereof, its upper end being level with the top of the levee. For said revetment second party is to receive sixty-three (63) cents per cubic yard measured as laid in the revetment.

*Fourth*—Second party hereby especially agrees within thirty (30) days from the date hereof to take such steps to enlarge their plant for doing the work and to increase their working force as shall satisfy the Chief Engineer of the first party, that the rate of monthly progress therein at the end of sixty (60) days from this date shall be up to the rate required to secure the completion of said work within the time called for by their contract, such rate being the quotient of the total cost, at the prices in said contract, of the excavation remaining to be done divided by the number of months remaining up to March 31, 1896; and it is expressly agreed that first party by this agreement has not waived the right to forfeit said contract for the causes set forth in the notice of December 28, 1893. aforesaid, but has merely delayed acting thereon at the request of second party for the purpose of permitting them to bring said work up to the required rate of progress as they claim they shall be able to do, and should they fail therein and said work should not within thirty (30) days from date hereof be in such condition as to satisfy said Chief Engineer that the requisite rate of monthly progress would be made after said period of sixty (60) days, then and in that case first party may upon such failure within thirty (30) days to show the progress aforesaid, declare said contract forfeited, and should second party at any time after sixty (60) days from date hereof fail to make the required rate of monthly progress in said work aforesaid or fail to perform any of the provisions of said original contract or this agreement, then in that case first party may upon giving ten (10) days

notice in writing of its intention so to do, declare said contract forfeited. Said original contract for said Section six (6) is in no wise altered or affected except in the particulars herein specified; as to all other matters the same is to remain in full force and effect except as to the provisions for the forfeiture thereof herein above specified.

*Fifth*—It is further agreed that under the terms of said original contract all the rock and other material excavated by second party in the prosecution of said work are the property of first party and that second party has no right under said contract and makes no claim to the right to sell or dispose of any of the same, but may use same for the work on said section wherever said contract so provides.

*Sixth*—Second party agrees to pay the laborers employed by them promptly at regular intervals and at least twice each month, and shall not pay said laborers in scrip, checks or other evidences of indebtedness or in any manner other than in lawful currency of the United States. They further especially agree that they will keep the work upon said section under their own exclusive control and will not assign or sublet all or any portion thereof nor carry on same or any portion thereof by means of agents or employees who are not continuously under their immediate control and supervision.

*In witness whereof*, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk and its corporate seal to be hereto affixed, and said party of the second part have hereunto put their hands and seal."

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"*This agreement*, Made this fourteenth (14th) day of February, A. D. 1894, by and between the Sanitary District of Chicago, of the first part, and Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., of the second part, witnesseth: That,

WHEREAS, Second party entered into a contract with first party on the eighteenth (18th) day of July, A. D. 1892, for the excavation of that portion of first party's Main Channel known as Contract Section seven (7) and for the execution of collateral work, connected therewith; and,

WHEREAS, First party, on the 28th day

of December, A. D. 1893, served a notice upon second party declaring that there had been a substantial failure on their part to comply with the requirements of their said contract with first party, both as to the progress and character of the work done under said contract, and also, in not keeping the said work under their control, and that said notice was served upon them under the provisions of said contract for the purpose of laying the foundation for the forfeiture thereof; and,

WHEREAS, Second party has represented to first party that it will be able within thirty (30) days from date hereof to put the work on said contract section in such condition that the required monthly rates of progress thereon shall thereafter be made by them;

*Now therefore*, To the end that said work shall be no further delayed and that the required rates of progress may be made thereon as speedily as possible and certain modifications of the specifications of said contract being deemed desirable, the parties hereto, in consideration of the reciprocal promises herein contained, do hereby covenant and agree as follows:

*First*—Second party shall excavate on a line parallel with the Main Channel and on the northerly side thereof between Stations 1050 and 1056, all muck or other soft or unstable material overlying the solid rock for a width of not less than fifty (50) feet, measured from the edge of the channel at the surface of the rock or hard material, and in the trench so formed they shall deposit broken rock or other suitable material, forming an embankment which shall be eight (8) feet wide on top at an elevation of seven (7) feet above datum, with the natural slope of said material as it leaves the dump, being approximately one and one-quarter ( $1\frac{1}{4}$ ) feet horizontal to one (1) foot vertical. In consideration of the execution of said work under the specifications to the satisfaction of the Chief Engineer of first party, first party will pay to second party for said embankment at the rate of sixty-five (65) cents per cubic yard, measured on its prism. Should first party think it necessary, in order to protect any part of the Main Channel from the inflow of soft material on the southerly side thereof, then second party will excavate such muck or soft material and build an embankment of such extent as the Chief Engineer may direct of the same character as that prescribed for the northerly side of said channel and at the same rate of payment. All soft material or muck



taken from the Main Channel, unless otherwise directed by the Chief Engineer, shall be deposited on the northerly side thereof, but no spoil bank of soft material will be permitted closer than one hundred (100) feet from the northerly edge of the completed channel between the stations above mentioned.

*Second*—Second party in the future prosecution of the work agrees to leave a berm or margin of one hundred (100) feet in width on each side of the Main Channel free from soft spoil or other permanent incumbrance except as hereinafter provided. Wherever prior to this agreement the fifty-foot berm has been incumbered by spoil, it shall be entirely removed by second party at their own expense; provided, that when the retaining wall shall have been built and properly backed up with broken stone or gravel, as set forth in the original specifications, then, and not till then, second party may deposit broken stone or other stable material taken from the Main Channel upon the reserved berm areas, provided that no material be placed nearer than fifty (50) feet to the shore line of the completed channel.

*Third*—Second party agrees to complete such portions of the river diversion levee on said section as do not already conform in all particulars to the specifications prescribed therefor, and will make the slope thereof next to the river diversion channel conform to the required cross-section, to-wit: to a height of eleven (11) feet above the grade established for the river diversion, through the rock cut or same prolonged, a width of thirty (30) feet on top and slop toward the river of one and one-half ( $1\frac{1}{2}$ ) to one (1), carried down to the natural surface of the ground. Such portions of said levee as have heretofore been made to conform to the required grade but have since, from rains or other causes been washed away, settled or otherwise decreased in volume, shall be brought to the required grade, and shall be paid for by first party at the rate provided for in the original contract for the excavation of glacial drift, but such portions of said levee as have not heretofore been made to conform to the required grade aforesaid shall be completed at the cost of second party. Should first party so require second party will revet the slope of the levee next to the river diversion channel where directed with broken stone to a thickness of not less than eighteen (18) inches, said revetments shall be hand placed with sufficient regularity to secure for it uniform thickness throughout,

and shall be carried up along the slope to the crest thereof, its upper end being level to the top of the levee. For said revetment second party is to receive sixty-three (63) cents per cubic yard measured as laid in the revetment. The berm of said river diversion shall be cleared of all broken stone and other material, and said stone where suitable may be used in said revetment. Second party further agrees to put an earth core into such portion of the levee on said Section seven (7) as the Chief Engineer of first party shall direct and to be of such material and such character as he shall prescribe, and shall be paid therefor by first party the sum of two thousand (\$2,000) dollars.

*Fourth*—Second party hereby especially agrees within thirty (30) days from date hereof to make such progress in the prosecution of said work under the original contract as shall bring the rate of monthly progress thereafter up to the rate required to secure the completion of said work within the time called for by their contract, such rate being the quotient of the total approximate cost, at the prices in said contract, of the excavation remaining to be done divided by the number of months remaining up to March 31, 1896, and it is expressly agreed that first party by this agreement has not waived the right to forfeit said contract for the causes set forth in the notice of December 28, 1893, aforesaid, but has merely delayed acting thereon at the request of the second party for the purpose of permitting them to bring said work up to the required rate of progress as they claim they shall be able to do, and should they fail therein and said work should not show the requisite rate of progress at any time after thirty (30) days from this date, or should there be a failure on the part of second party to perform any of the provisions of said original contract or of this agreement at any time after said thirty (30) days then and in that case first party may upon giving ten (10) days notice in writing of its intention so to do, declare said contract forfeited. Said original contract for said Section seven (7) is in nowise altered or affected except in the particulars herein specified, as to all other matters the same is to remain in full force and effect except as to the provisions for the forfeiture thereof hereinabove specified.

*Fifth*—It is further agreed that under the terms of said original contract all the rock and other material excavated by second party in the prosecution of said work are the property of first party and that second party has no right under



said contract and makes no claim to the right to sell, or dispose of any of same, but may use same for the work on said section wherever said contract so provides.

*Sixth*—Second party agrees to pay the laborers employed by them promptly at regular intervals and at least twice each month, and shall not pay said laborers in scrip, checks or other evidences of indebtedness or in any manner other than in lawful currency of the United States. They further especially agree that they will keep the work upon said section under their own exclusive control and will not assign or sublet all or any portion thereof nor carry on same or any portion thereof by means of agents or employes who are not continuously under their immediate control and supervision.

*In witness whereof*, On the day and year first above written, the said Sanitary District of Chicago has caused this agree-

ment to be signed by its President and attested by its Clerk and its corporate seal to be hereto affixed, and said party of the second part have hereunto set their hands and seals."

#### ADJOURNMENT TO SPECIAL TIME.

Mr. Boldenweck, seconded by Mr. Cooley, moved that when the Board adjourn it do adjourn to meet Friday, February 16, 1894, at 4 o'clock P. M.

The motion prevailed unanimously, and it was so ordered.

#### ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned to meet Friday, February 16, 1894, at 4 o'clock P. M. pursuant to motion.

THOS. F. JUDGE,  
Clerk.

#### ADJOURNED MEETING.

The adjourned session of the two hundred and ninth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Friday, February 16, 1894, at 4 o'clock P. M., pursuant to motion.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly and Wenter—six (6) members, were present.

#### REVISED ADVERTISEMENT FOR SECTIONS ONE (1) AND N AND O, SPECIFICATIONS, BOND AND PROPOSALS FOR LETTING OF SECTIONS N AND O.

The Clerk presented a report from the Chief Engineer, transmitting revised form of advertisement, covering the letting of Section 1, and the letting of Sections N and O, of the Main Channel, and also specifications, bonds and proposals for the letting of Sections N and O; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report and accompanying revised advertisement, specifications, bond and proposals be adopted, ordered printed and placed on file, and the Clerk directed to publish the accompanying revised advertisement as recommended in the report of the Chief Engineer.

On roll-call the vote stood: Yeas—

Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report and accompanying revised advertisement, specifications, bond and proposals adopted, ordered printed and placed on file, and the Clerk directed to publish the accompanying revised advertisement, as recommended in the report of the Chief Engineer.

#### The following is

THE REPORT, WITH REVISED ADVERTISEMENT, SPECIFICATIONS, ETC.

"CHICAGO, Feb. 16, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago :*

GENTLEMEN—I transmit herewith a form of specifications, proposal and bond under which it is proposed to construct Sections N and O of the Main Drainage Channel, which said sections complete the route of the said Main Channel from the west end of Contract Section No. 14 to the center of Robey street, in the City of Chicago, a total distance of 144,161 feet, or nearly 27.30 miles; and I would recommend that the advertisement for Section No. 1 be amended so as to cover Sections N and O by inserting after the clause describing Section 1 the words, "and further, for the excavation of that portion of the said Main Drainage Chan-

nel known as Contract Sections N and O, extending from Station 154+23 to Station 38+89, consisting in all of 2,552,732 cubic yards of earth excavation. Each proposal for each section to be accompanied by a certified check or cash to the amount of \$5,000. All certified checks to be drawn on some responsible bank doing business in the City of Chicago and made payable to the order of the Clerk of the Sanitary District of Chicago. Said amount of \$5,000 to accompany each bid, for each of the respective sections will be held by the Sanitary District until all of said proposals have been canvassed," etc., etc.

Follow the words, "for the fulfillment of the same the amount of \$100,000" with the words, for Section No. 1; and \$75,000 each for Sections N and O. Which changes will accomplish a saving in cost of advertising.

(See advertisement written in full, with amendment by the Attorney of the District.)

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

*Chief Engineer."*

(Enclosing revised advertisement, etc.)

The following is

#### THE ADVERTISEMENT :

"SANITARY DISTRICT OF CHICAGO.

*To Contractors:*

Sealed proposals addressed to the Board of Trustees of the Sanitary District of Chicago, and indorsed:

"Proposal for excavating a portion of the Main Drainage Channel" will be received by the Clerk of the said Sanitary District at Room H, Rialto Building, Chicago, Ill., until 12 M. (standard time) of Wednesday, the 18th day of April, 1894, and will be publicly opened by the said Board of Trustees at the regular meeting held that day, or at a special meeting called for that purpose.

The work for which the said tenders are invited is the excavation of that portion of the Main Drainage Channel for the said Sanitary District, known as Contract Section One (1), extending from Station 733 to Station 800, and consists in all of about 459,724 cubic yards of rock, of about 1,662,476 cubic yards of earth, the building of 60,188 cubic yards of rubble walls, and 1,154

square yards of slope paving; and further, for the excavation of that portion of the said Main Drainage Channel known as Contract Sections N and O, extending from Station 154+23 to Station 38+89, consisting in all of 2,552,732 cubic yards of earth excavation.

Each of said sections will be treated as a separate contract in canvassing proposals and making awards. As all awards will be made by individual sections, each bidder must make prices for each section separate and distinct from every other.

Each proposal for each section to be accompanied by a certified check or cash to the amount of \$5,000.

All certified checks to be drawn on some responsible bank doing business in the City of Chicago and be made payable to the order of the Clerk of the Sanitary District of Chicago. Said amount of \$5,000 to accompany each bid for each of the respective sections will be held by the Sanitary District until all of said proposals have been canvassed and contracts awarded and signed, the return of said check or cash to the bidder to whom said work shall have been awarded being conditioned upon his appearing within ten days after notice of such award being given, with bondsmen, and executing a contract with the Sanitary District for said work so awarded, and giving a bond satisfactory to the Board of Trustees for the fulfillment of the same in the amount of \$100,000 for Section 1, and \$75,000 each for Sections N and O.

All proposals must be made upon the blank forms furnished by the Sanitary District and must give the price for each separate item of work.

The bids will be compared on the basis of the Engineer's approximate estimate of quantities, which will be furnished with copies of the specifications.

No proposal will be considered unless the party making it shall furnish evidence satisfactory to the Board of Trustees of his ability to do the work, and that he has the necessary pecuniary resources to fulfill the conditions of the contract, provided such contract shall be awarded him.

Bidders are required to state in their proposals their individual names and places of residence in full.

Specifications and plans may be seen at



the office of the Chief Engineer, Rialto Building, Chicago, Ill.

The said Board of Trustees reserves the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,

By FRANK WENTER,

*President of its Board of Trustees.*

Attest:

THOS. F. JUDGE,  
*Clerk.*

CHICAGO, Ill., February 16, 1894."

The following are

### THE SPECIFICATIONS:

"THE SANITARY DISTRICT OF CHICAGO.

Contract and specifications for Sections N and O, of the Main Drainage Channel, between the north and south center line of Section 35, Township 39 North, Range 13, east of the Third Principal Meridian, in Cook County, Illinois, and the center of Robey street in the City of Chicago.

*This Agreement, Made and entered into this ..... day of ..... A. D. 189. ., by and between the Sanitary District of Chicago, of the first part, and ..... of ..... in ..... of the second part.*

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part, by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, explosives, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete excavation and entire removal of earth, rock, glacial drift and other material, from that portion of the said Main Drainage Channel, known and distinguished by the specifications herein contained, and the plans accompanying them, as Section.....

.....together with the building of all collateral works, which by the terms of this contract are included in the same. Said section to be entirely completed and prepared ready for inspection as provided for in Section 27 of an act of the Legislature of the State of Illinois, entitled "An act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers," approved May 29, 1889, in force July 1, 1889.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and such assistants, superintendents and inspectors as the Chief Engineer may appoint, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his assistants and inspectors shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit, and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Whenever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago as represented by the Board of Trustees or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties entrusted to them.

Whenever the word "Contractor" is used herein it shall be understood to mean the person or persons, or copartnership or corporation entering into the contract as party of the second part.

The maps, plans and profiles hereto attached are made part of this contract, but are subject to such modifications as are herein provided for.



## SPECIFICATIONS.

D—

1. *Location*—The work covered by and included in these specifications is the excavation of that part of the Main Drainage Channel and the building of certain collateral works for the Sanitary District of Chicago lying between the north and south center line of Section 35, Township 39 North, Range 13, east of the Third Principal Meridian in Cook County, Illinois, and the center of Robey street in the City of Chicago. Beginning near the center line of said Section 35 the said part of the said Main Drainage Channel is located approximately 663 feet northwesterly of and parallel to the north reserve line of the Illinois and Michigan Canal, as shown on accompanying plan marked No. 1 and as located by the Chief Engineer. The total approximate length of the excavation is 11,540 feet, or about two and two-tenths miles.

2. *Sections*—For the purpose of conveniently designating different sections of the work and of dividing it into contracts the said part of the Main Drainage Channel shall be divided into sections as follows: Section “N,” extending from the station designated 154+23 (which station is also the easterly end of Section M) on the west line of the right of way of the Atchison, Topeka & Santa Fe Railroad Company in Chicago to the south line of the right of way of the Chicago, Madison & Northern Railroad Company in Chicago at a point designated as Section 109+17.

Section “O,” extending from the station designated 109+17 to the center line of Robey street, designated as Station 38+89,

3. *Grade*—The grade line of the bottom of said Main Channel at the station designated 154+23 shall be at an elevation of 24.736 feet below the datum established by the Illinois & Michigan Canal trustees in 1847 and shall slope thence uniformly upward at the rate of 0.025th of a foot vertical to 1,000 feet horizontal to the end of the excavation at the station designated 38+89, where it shall have an elevation of 24.448 feet below datum.

The Sanitary District reserves the right to change said grade by raising or lowering it, or by increasing or decreasing the slope, thereby increasing or decreasing the amount of excavation; provided, that said change shall in nowise affect the terms of

this contract as to price, or entitle the said contractor to any compensation additional to the rate fixed by this contract, or render the Sanitary District liable for any damages whatsoever, direct or indirect. Provided, further, that the said change shall in no place affect the grade by an amount exceeding four feet; and that the Sanitary District shall notify the said contractor of any such change before any portion of said channel shall have been finished in conformity to the grade as hereinbefore specified.

4. *Dimensions of Cross Section*—The width of the channel at bottom shall be one hundred and ten (110) feet, and the sides shall rise at the rate of one (1) foot vertical to two (2) horizontal, as shown on Plan 3.

5. *Clearing and Grubbing*—The contractor will be required to remove all trees, stumps, buildings, piles and docks, fences, or other incumbrances within 200 feet of the center line of the channel, or that may be in the way of any collateral or subsidiary work herein specified. All such material of value, except such as the Sanitary District may elect to retain, shall be the property of the contractor, and all worthless material shall be disposed of as directed by the Chief Engineer. The cost of this work shall be included in the prices for excavation as hereinafter stated.

6. *Levee*—The said contractor shall build at his own cost and expense all or any levees which may be necessary to protect the work, provided for in this contract, during the progress of the same, and said levees shall be built and maintained so as to exclude water from the Main Channel until such time as said work shall be accepted by the District. Should the character of any levee be insufficient in the judgment of the Chief Engineer, the same shall be made adequate as the Chief Engineer may direct, but any damage that may occur from flooding, either before or after the building of any levee, shall be borne by the said contractor. The levees shown on Plan “1” are to be undertaken immediately, and completed as soon as practicable. The main levee is to be continuous throughout sections “N” and “O” as far as the Pan-Handle R. R. bank, and is to be located in the main parallel to the Main Channel, and along or near the northerly boundary

of the right of way as shown on plan, and as same shall be located by the Chief Engineer. Said levee is to have a height of 16 feet above datum at the west end of Section N, and shall descend uniformly to a level of 12 feet above datum at the Pan-Handle R. R., and it shall have a width of 15 feet at top and side slopes of two to one, and be water-tight and in every respect so constructed as to make a substantial and durable levee.

7. *Disposition of Material*—The contractor, except as hereinbefore specified, and hereinafter provided, is to dispose of all material to be excavated under the terms of this contract at his own expense and in the most convenient manner, in waste banks on the right of way; provided, that the foot of the inner slope of said banks shall not be nearer to the edge of the Main Channel than 80 feet, measured at an elevation of 10 feet above datum, and that the slope of the waste banks toward the channel shall not at any time during the work of excavation or after its completion have an incline steeper than two (2) horizontal to one (1) vertical, and that the slope of the sides away from the Main Channel, or toward any roadway, or in any other direction, shall not at any time have a slope steeper than one and one-half ( $1\frac{1}{2}$ ) horizontal to one (1) vertical. Provided, that if it should prove at any time after the work has commenced that the sub-stratum or soil on which waste banks are to be placed should not be in a physical condition to sustain the weight of the superincumbent waste banks without being displaced, then the material excavated shall, at the option of the Sanitary District, be deposited at other places, to be determined by the Sanitary District, and the extra cost, if any, of such disposition to be determined as provided under the head of *extra work*. Provided, however, that if additional right of way be furnished adjacent to the area which shall have proved unable to sustain waste banks without being displaced, then the contractor shall, without additional expense to the Sanitary District, cease disposing material on said waste bank area and dispose it on the additional right of way provided as directed by the Chief Engineer. The material excavated is to be spoiled in the area for waste banks shown on Plan "1," the material first excavated being placed most re-

motely from the channel, and the waste bank to be so constructed that its highest point when completed shall not be nearer to the center line of the channel than 300 feet; *provided*, that this shall not be construed to prevent other disposition of the material with the consent or under the direction of the Chief Engineer.

7a. If he elects so to do, in lieu of disposing of the material as described in the preceding paragraph, the contractor may, after building the levees hereinbefore specified to be built, building any embankments which may be ordered for streets or railways as hereinafter provided, and filling in excavations heretofore made adjacent to the line of said Main Channel to such height as may be determined and ordered by the Chief Engineer, remove any and all surplus material entirely from the right of way and lands of the Sanitary District, and dispose of the same as he may see fit; and in case he elects so to remove the same, he shall remove all such surplus material before the date agreed upon for the completion of this contract.

And further, it is understood and agreed that no work shall be done upon any portion of the line covered by this contract which in the judgment of the Chief Engineer should be kept free and unincumbered, pending the adjustment of any question or questions affecting the relations of this district with the municipality of Chicago, the Board of Park Commissioners, or any railway company or corporation growing out of the readjustment of streets, highways, boulevards, or railway tracks, until such time as the said Chief Engineer shall in writing order the contractor to proceed upon the portions exempted as above.

8. *Drainage*—The contractor is to provide all pumping machinery and operate the same at his own cost and expense during the time of excavation, and until the whole work is fully completed and inspected, as provided for in other sections of this contract. The contractor shall not dispose of nor make use of any water nor otherwise conduct his work in such manners to interfere with the operations of other contractors for the Sanitary District.

9. *Classification of Material*—All material excavated under the provisions of this contract is to be classified as excavation.



10. *Quantity and Quality of Material*—A longitudinal section of the ground, made approximately on the center line of the Main Channel, is shown on Plan "2." This section, though believed to be reasonably correct, does not purport to be absolutely so, and is only presented as an approximation, as is also the schedule of quantities attached as an appendix thereto. The contractor is to take all risk as to the variation of the total quantity of material excavated. Plan "2" shows approximately the position of test pits made by the Sanitary District, together with an abstract of the notes of the inspector of the pits. The full notes of the inspector are on file at the offices of the Sanitary District and may be examined by bidders under the supervision of the Chief Engineer. Beyond these exhibits the Sanitary District has no knowledge of the character of the material to be encountered, and bidders must satisfy themselves by investigations made on their own account. Wherever the standard cross-section shown on Plan "3" is enlarged through the displacement of the material of the sides thereof, the same shall be paid for at the prices named herein and to the extent that the finished cross-section is actually and necessarily enlarged; *provided*, that said displacement is unavoidable and is such as is due to the nature of the material, and occurred through no fault or dereliction of the contractor.

And further, whenever and wherever, in the judgment of the Chief Engineer, it shall be necessary or proper to enlarge the cross-section of the Main Channel, or to excavate a basin or basins adjacent thereto, then, upon written orders from the Chief Engineer, the contractor shall make the excavations so ordered in accordance with plans, stakes, lines and instructions to be given therefor, and he shall be paid for making such excavations the price per cubic yard agreed upon for excavating the Main Channel.

11. *Highways*—All public roads or streets now open and in actual use by the public, crossing or lying adjacent to the Main Channel, shall be kept open and unobstructed during the progress of the work. No interference with any such public road or street will be allowed until a temporary or permanent road or street has been provided, under the direction of the Chief Engineer, which will permit safe and

free travel. No interference will be allowed with any railway until such time as other and proper provision for the operation of such railway has been made under the direction of the Chief Engineer.

The Chief Engineer may require the contractor to grade a roadbed at or near the site of any existing roadway, street, or railway that crosses the line of the Main Channel with material from the Main Channel, provided the width shall not exceed 80 feet and the height 28 feet above datum, and that said grading shall not extend over 500 feet from the center line of the Main Channel measured along said roadbed. If the Chief Engineer shall require the contractor to grade any additional roadbed for any purpose, it shall be paid for as provided under the head of extra work.

The Sanitary District reserves the right to permit one contractor to pass over or across the contract section of another for the purpose of transporting material or machinery to his own section; provided, that such passage shall be under the direction and control of the Chief Engineer, and shall be made at such times and in such manner as not unnecessarily to interfere with the work on the section so passed over.

12. *Bridges and Structures*—The Sanitary District reserves the right through its agents or contractors to enter upon the said Main Channel and right of way, at any time and place, after or before the excavation has been completed, for the purpose of erecting, or preparing for the erection, of any bridge or bridges, or the building of any road, railway or other structure, provided that such work of erection or preparation therefor shall not unreasonably or unnecessarily interfere with the contractor in carrying out the provisions of this contract.

To this end the contractor shall make, or permit to be made, at the expense of the Sanitary District, such changes in his plant as, in the opinion of the Chief Engineer, may be necessary. Said contractor shall also, at the option of the District, and under the direction of the Chief Engineer, make any necessary excavation in or adjacent to the Main Channel, and do any necessary grading that may be required for the building of any structure, the same to be paid



for as provided under the head of *extra work*.

13. *Explosives*—The contractor is to furnish all explosive compounds for blasting the material provided to be excavated under this contract; and, whereas, the storing, handling and use of explosive material requires the utmost care and discrimination, it is therefore understood and agreed that the said contractor shall arrange for the storage of all explosive materials at a distance not less than 600 feet from the work, or from any other magazine, or from any dwelling occupied for a habitation, and that not more than 5,000 pounds shall be kept in one place. It is further understood and agreed that said explosive material shall in no case be brought onto the work except when needed for the purpose of charging the blast holes, and then only in such quantity as is needed for the particular work in hand, and that none but skilled and careful men shall be employed in the handling or use of said explosives, and that no liquid explosive shall be used.

It is further understood and agreed that the ground surrounding all magazines shall be kept free of vegetable or combustible material for a radius of one hundred feet, and that their walls shall be made bullet proof, to a height of one foot above the contained explosives, and that in no case shall they be made of brick or stone. It is also understood and agreed that such signals of danger, as may be directed by the Chief Engineer shall be given or displayed before the firing of any blast, and that the said contractor shall conform his acts to and obey all rules and regulations relative to the handling of explosives and the firing of blasts, for the protection of life or property, which may be made by the Chief Engineer from time to time.

14. *Measurement*—Measurement for all excavated material will be made in excavation by the cubic yard of twenty-seven cubic feet, based upon the survey and cross-section notes of the Chief Engineer.

The prices given herewith are to include all work herein specified, as clearing and grubbing, levees for protection, pumping, roadways for working, and generally all work and material found necessary in prosecuting this contract, including the removal of piles and docking.

15. *Extra Work*—All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Chief Engineer at the time such labor or material are furnished, or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which price is fixed by this contract.

Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Chief Engineer shall fix such prices for the work as he shall consider just and equitable, and the contractor shall abide by such prices; provided he enters upon such work with full knowledge of the prices so fixed by the Chief Engineer, but if the contractor declines executing said work at the prices fixed by the Chief Engineer, then the Sanitary District may enter into contract with any person or persons for its execution, the same as if this contract had never existed; and if extra work, or work not provided for in this contract, is performed by the contractor before prices have been fixed for such work, then the Chief Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept of said prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with 10 per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

16. *Responsibility of Contractor*—All the work provided for in this contract is to be done in a skillful and workmanlike manner, under the direction and supervision of the Chief Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish

all needed facilities, without charge therefor, to enable the Chief Engineer to properly give lines and grades, and to measure the work from time to time.

All work will be subject to inspection by the said Chief Engineer and his said agents, and if not in accordance with the requirements of this contract, it is to be made good by the contractor.

The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to assign or sub-let all or any part of it, it being distinctly understood and agreed that the assigning or sub-letting of the work covered by this contract, or any part thereof, shall work a forfeiture of the contract at the option of the Sanitary District.

The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case there is a substantial failure on the part of the contractor to comply with the provisions of this contract as to progress and character of the work, or to comply with the provisions of this contract in regard to giving bonds for the performance thereof, the party of the first part may declare this contract forfeited; and in such case the reserve of  $12\frac{1}{2}$  per cent. herein provided for, and any other retained percentage, shall be forever retained by the said party of the first part as liquidated damages for such failure of second party to so prosecute or complete said work.

17. *Changes in Plan*—In addition to the reservations hereinbefore made, the Sanitary District reserves the right to make alterations in the line, grade, plan, form, dimensions, or material of the work herein provided for, either before or after the beginning of construction; provided, that if alterations are made, the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of the work to be done they shall not constitute a claim for damages, or for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work

actually done, and at prices and rates established for such work under this contract. Notice of any change of plan must be given the contractor in writing. And it is expressly agreed that no alterations, or additions, or extra work are to be paid for unless directed in writing.

18. *Tools*—The contractor is to furnish all the tools of every kind and description, including pumps, cars and track, necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, buildings and material of all kinds from the right of way of the Sanitary District.

19. *Precautions*—Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, or which in the judgment of the Chief Engineer shall be necessary, shall be taken by the contractor.

20. *Workmen*—The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Chief Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

And further, the contractor shall provide and employ, upon the order of the Chief Engineer, men, teams, tools and machinery suited to the work, in such number and quantity as may, in the judgment of the said Chief Engineer, be necessary for carrying on and completing the works in conformity with the time limit stated by this contract. And further, it is understood and agreed that the Chief Engineer may order the prosecution of any particular portion of this work which, in his judgment, needs special expedition, and it shall be so done as directed by him.

*E—*

*Damages*—If any damages shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands or to any property adjoining, or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, for which the contractor herein is legally liable, the Chief Engineer shall have the right to estimate the amount of



said damage and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damage shall be deducted from the money due said contractor under this contract.

Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or his employes, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any injuries or damages received or sustained by any person or persons by or from said contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any failure or negligence in guarding or protecting the same; or by or on account of any act or omission of said contractor, his agents or employes; and the said contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suits or claims for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

F—

*Sanitary District Law*—The said contractor hereby agrees to carry on all the work provided for in this contract, in strict conformity to the requirements of the law under which the Sanitary District of Chicago is organized, entitled "An act to create Sanitary Districts and to remove obstructions from the Desplaines and Illinois Rivers"; approved May 29, 1889, in force July 1, 1889, which provides in Section 11, among other things, that "No person shall be employed on said work unless he be a citizen of the United States or has in good faith declared his intentions to become such citizen. In all cases where an alien after making his declaration of intention to become a citizen of the United States shall, for the space of three months after he could lawfully do so, fail to take out his final papers and complete his citizenship, such failure shall be *prima facie* evidence that his declaration of intention was not made

in good faith; and that eight hours shall constitute a day's work."

G—

*Time*—The contractor agrees to begin work within fifteen days after the execution of this contract. He agrees to carry it on at such points, and in such order of procedure, as the Chief Engineer may direct.

All the Main Channel work provided to be done under this contract shall be completed and ready for inspection on or before the 31st day of May, of the year 1896. All levee work to be completed on or before October 1, 1894.

The work done each month shall not be less than such proportion of the whole work as one month bears to the total number of months agreed upon for the completion of said work, provided that the time from the date of this contract to June 1, 1894, shall be considered as one month, and the last two months before date of completion, as one month, and, provided further, that this rate shall not be required if at any time the aggregate work done exceeds the total proportion due to the time that has passed since May 1, 1894; and always provided that the Sanitary District shall not be obligated to make payment in excess of the above monthly proportion; and said May 1, 1894, is hereby fixed as the date from which all progress estimates shall be made.

H—

*Price*—In consideration of the said work being carried on and completed in time and manner as specified, the said party of the first part agrees to pay to the said party of the second part, and the said party of the second part agrees to receive and accept as full compensation therefor, including the furnishing by him of all necessary materials, tools, labor, machinery and appliances:

For each cubic yard of excavation, disposed of as provided in paragraph 7, the sum of ..... dollars (\$....).

For each cubic yard of excavation, disposed of as provided in paragraph 7a, ..... dollars (\$....).

*Time and Manner of Payment*—It is agreed by the party of; the first part, that on or before the 10th and 25th days of each month, during the progress of the work, and subject to the provisions hereinbefore



specified under the head of "Time," payment will be made to the said party of the second part to the amount of 87½ per cent of the contract price of the approximate amount of work done during the previous half month, upon written certificates from the Chief Engineer that such approximate amount of work has been done during that period, 12½ per cent being reserved until the completion and acceptance of the whole work, provided the work has been done in all particulars in conformity with this contract, and to the satisfaction of the Chief Engineer.

J—

*Grading of Prices*—It is hereby agreed by the said party of the second part that if his manner of conducting the work is such that at the time of making any progress estimate a markedly greater proportion of the top material has been excavated than of the bottom material, then the Chief Engineer shall in making such estimates ascertain what amount that has been excavated up to that time of any material lies above, and what below, a horizontal plane dividing the mass of said class of material into equal parts; and if the upper portion exceeds the lower, then the total amount of material found to have been excavated previous to the time of making the estimate shall be reduced by 10 per cent. of said excess, and estimates or certificates issued on the remainder, with the percentage deductions provided for in the preceding Section I.

K—

*Certificate*—On all the work provided for in this contract being completed, in accordance with the contract, and to the full satisfaction of the Chief Engineer, and on its being inspected by him, and a certificate made by him setting forth the amount of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to said second party by the said certificate of the said Chief Engineer, including the 12½ per cent. reserve.

L—

*Failure to Complete*—It is further agreed by the said party of the second part that if the work to be done under this contract shall be abandoned, or if it shall be assigned by him, or if he loses control of the

work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or, if at any time the Chief Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not executing said contract in good faith, the said party of the first part shall have the power to notify said contractor to discontinue all work, or any part thereof, as may be designated by said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as the said Chief Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing said Chief Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work shall be charged to the said contractor, and any moneys that may then be due, or may at any time thereafter become due to said contractor under and by virtue of this contract, shall be applied by first party to the payment of such cost, so far as same shall suffice therefor, and the remainder of the cost of so completing said work, if any, shall be paid by said contractor to first party on demand.

M—

*Payment of Laborers*—Said contractor shall pay the laborers employed by him promptly at regular intervals, and at least twice each month, and shall not pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States. And if at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed, and in manner aforesaid, or for material furnished upon said work, then the party of the first part shall have power to pay for such labor or such material out of any money or moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor.

In any such case the party of the first part is hereby authorized and empowered by the said party of the second part to ascertain the amount or amounts due or owing from said contractor to any laborer or laborers, or to any person for material furnished, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said contractor, and the amount or amounts so found by the said party of the first part to be due and owing to said laborer or laborers, or to said material men, shall be final and conclusive as against said contractor, and may thereafter be paid over by the said first party to such laborer, laborers or material men.

M—

*Contractor's Bond*—The contractor shall furnish a bond in the sum of seventy-five thousand (\$75,000) dollars, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract, and should the sureties on said bond at any time fail financially, or be, in the opinion of said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten days notice thereof in writing, require said contractor to furnish a new or additional bond in the place of the bond so having become insufficient or worthless.

N—

*Final Payment*—The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein con-

tained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

O—

*Health Regulations*—Said party of the second part agrees to introduce and enforce among ..... employees, such regulations in regard to cleanliness, the care of dwellings and premises and the disposition of garbage and offal, as shall conduce to their health and tend to prevent the inception and spread of contagious and infectious diseases among them, to make provision for an ample supply of suitable drinking water, and to take such means as shall effectually prevent the creation of a nuisance on any part of the right of way of said Sanitary District or adjacent thereto, and as may be directed by the Sanitary Inspector of said Sanitary District.

IN WITNESS WHEREOF, On the day and year first above written, the said Sanitary District of Chicago has caused this Agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set. .... hand.. and seal..

THE SANITARY DISTRICT OF CHICAGO.

[SEAL.]

By .....  
President.

Attest: .....  
Clerk.

..... [SEAL.]

..... [SEAL.]

..... [SEAL.]

..... [SEAL.]”

The following is the

#### CONTRACTOR'S BOND:

“Know all men by these presents, That we, .....  
.....  
.....  
of .....  
re held and firmly bound unto the Sanitary



District of Chicago, in the penal sum of ....  
 .... dollars, lawful money of the United  
 States, for the payment of which sum of  
 money well and truly to be made, we bind  
 ourselves, our heirs, executors and admin-  
 istrators, jointly and severally, firmly by  
 these presents.

Sealed with our seals and dated this ....  
 day of .... A. D. 189..

*The Condition of the above Obligation*  
*is such, That, whereas, the above bounden*

.....  
 ha., entered into a certain contract with  
 the Sanitary District of Chicago, bearing  
 date the .... day of .... A. D. 189.., for ex-  
 cavating Section.....of the Main Drain-  
 age Channel of the Sanitary District of  
 Chicago, and building certain collateral  
 works in connection therewith, between the  
 north and south center line of Section 35,  
 Township 39 North, Range 13 East of the  
 Third Principal Meridian in Cook County,  
 Illinois and the center of Robey street in  
 the City of Chicago, in the County and State  
 aforesaid, as set forth in said contract.....

.....  
 Now, if the said.....

.....  
 shall in all respects, well and truly keep  
 and perform the said contract on.....part,  
 in accordance with the terms thereof, and  
 the plans and specifications therein con-  
 tained and referred to, and in the time and  
 manner therein prescribed, and further  
 shall indemnify, keep and save harmless  
 the Sanitary District of Chicago against  
 all liabilities, judgments, costs, damages  
 and expenses, which may in anywise come  
 against said Sanitary District, in conse-  
 quence of the granting of such contract, or  
 which may in anywise result from the care-  
 lessness or neglect of said.....

.....  
 agents, employes or workmen, in any re-  
 spect whatever, or which may result on ac-  
 count of any infringement of any patent,  
 by reason of the materials, machinery, de-  
 vice or apparatus used in the performance  
 of said contract, and, moreover, shall pay  
 to said Sanitary District any sum or sums  
 of money determined by the Chief Engi-  
 neer to be due said Sanitary District, by  
 reason of any failure or neglect in the per-  
 formance of the requirements of said con-

tract, and shall pay all claims and demands  
 whatsoever, which may accrue to each and  
 every person, who shall be employed by  
 .....  
 in or about the performance of said con-  
 tract, then this obligation to be null and  
 void, otherwise to remain in full force and  
 effect.

*And it is hereby expressly understood*  
*and agreed, and made a condition hereof,*  
*that any judgment rendered against said*  
*Sanitary District of Chicago, as aforesaid,*  
*in any suit for damages occasioned by the*  
*carelessness or neglect of said .....*  
*.....or.....agents,*  
*employes or workmen, in the premises,*  
*when notice of the pendency of such suit*  
*shall have been given said.....*  
*.....shall be*  
*conclusive against each and all parties to*  
*this obligation, as to amount, liability, and*  
*all other things pertaining thereto.*

.....[SEAL.]

.....[SEAL.]

.....[SEAL.]

.....[SEAL.]

Approved.....189..

Clerk."

(With affidavits and schedules.)

The following is the

#### FORM OF PROPOSAL:

*"To the Board of Trustees of the Sanitary  
 District of Chicago:*

GENTLEMEN—The undersigned hereby  
 certif ..... that ..... have  
 examined the plans on file in the office of  
 the Chief Engineer of the Sanitary District  
 of Chicago, the annexed specifications and  
 forms of contract for the excavation of  
 Sections N and O, a portion of the Main  
 Drainage Channel of said Sanitary District  
 as therein described, and propose ..... to  
 do all the work and to furnish all material,  
 tools, explosives, labor and all appliances  
 and appurtenances necessary to the full  
 completion of the same, at the rates and  
 prices for the several sections of said work,  
 as follows, to-wit:

Contractor is to furnish and operate  
 pumping plant and to provide all other ap-  
 pliances for doing the work, and to dispose



of all material in spoil banks, as shown on the plans.

Section. No.	DISPOSITION OF MATERIAL.	EXCAVATION.	
		Price per cubic yard.	
		CENTS.	
N	Paragraph 7. Spoiled on right of way.....	.....	.....
N	Paragraph 7a. Removed from right of way.....	.....	.....
O	Paragraph 7. Spoiled on right of way.....	.....	.....
O	Paragraph 7a. Removed from right of way.....	.....	.....

The above proposals are based upon the conditions and stipulations made in the advertisements inviting proposals for said work, and in accordance with the contract, specifications and plans for the same on file in the office of the Chief Engineer of the said Sanitary District, and should the said Board of Trustees award any of said sections of said work to the undersigned, then .... agree to .... enter into contract for the same and to do the work as specified.

In accordance with the requirements of said advertisement there is deposited herewith the sum of ..... dollars, which, under the terms of the advertisement, entitle .... to bid on .... sections of said work, the same to be refunded to .... upon the faithful performance of all the conditions stipulated in the said advertisement for proposals.

It is further agreed that should the within proposal for excavating certain sections of said Main Drainage Channel be awarded to .... and .... should fail or neglect to enter into contract with the said Sanitary District in the time and in the manner required by the said advertisement for pro-

posals, and to furnish bonds as therein required to the satisfaction of the said Board of Trustees, then the said sum of ..... dollars, deposited herewith, shall become forfeited to the Sanitary District as liquidated damages.

Name.....

Address.....

Name.....

Address.....

Name.....

Address.....

Name.....

Address.....

NOTE—Companies or firms bidding must give the individual names and addresses of the persons comprising such firms.

Received from the Sanitary District of Chicago the sum deposited with the above proposal, the same being.....dollars.

CHICAGO,.....189...

#### APPROXIMATE QUANTITIES OF WORK.

Sections—	Excavation. Cubic yards.
N.....	1,103,355
O.....	1,449,377
Total.....	2,552,732"

#### ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned.

THOS. F. JUDGE,

Clerk.







PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES,

—OF THE—

SANITARY DISTRICT OF CHICAGO.

FEBRUARY 21, 1894.

OFFICIAL RECORD.

(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)

REGULAR MEETING.

The two hundred and tenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, February 21, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Cooley, Eckhart, Kelly, Russell and Wenter—five (5), and subsequently Messrs. Gilmore, and Pendergast—two (2), making a total of seven (7) members, were present.

MINUTES.

The minutes of the adjourned session

of the regular meeting of February 7, 1894, held February 10, 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Eckhart.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

<i>Construction Account—</i>	
McArthur Bros. (Sec. 2, Feb. 16, '94).....	\$5,000 63
Gilman & Co. (Sec. 3, Feb. 16, '94).....	6,967 80
McArthur Bros. (Sec. 4, Feb. 16, '94).....	2,353 83
The Qualey Construc- tion Co. (Sec. 5, Feb. 16, '94).....	1,653 75
Agnew & Co. (Sec. 6, Feb. 16, '94).....	2,268 00
Agnew & Co. (Sec. 7, Feb. 16, '94).....	2,145 94

Mason, Hoge, King & Co. (Sec. 8, Feb. 16, '94).....	\$ 130 81	
Halvorson, Richards & Co. (Sec. 9, Feb. 16, '94).....	4,979 28	
E. D. Smith & Co. (Sec. 10, Feb. 16, '94).....	13,370 00	
Mason, Hoge & Co. (Sec. 11, Feb. 16, '94).....	10,193 54	
Mason, Hoge & Co., (Sec. 12, Feb. 16, '94).....	6,310 28	
Mason, Hoge & Co., (Sec. 13, Feb. 16, '94).....	12,230 97	
Western Dredging & Improvement Co. (Sec. C, Feb. 16, '94).....	1,847 95	
E. D. Smith & Co. (Sec. D, Feb. 16, '94).....	2,176 34	
Ricker, Lee & Co. (Sec. F, Feb. 16, '94).....	2,031 37	
Heldmaier & Neu, (Sec. B, revetment of levee, Feb. 1, '94).....	182 00	
E. D. Smith & Co. (Sec. D, pile trestle, Feb. 16, '94).....	1,000 00	
	<hr/>	\$74,842 49

## ENGINEERING DEPARTMENT.

J. R. Davis & Son, (extra test pit).....	\$90 00
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## CLERICAL DEPARTMENT.

A. C. McClurg & Co. (stationery).....	\$ 2 40	
Waukesha Hygeia Mineral Springs Co. (water).....	3 75	
	<hr/>	\$6 15

## LAW DEPARTMENT.

A. C. McClurg & Co. (stationery).....	\$ 8 89	
Cameron, Amberg & Co. (stationery).....	25 16	
C. S. Darrow, (legal services).....	1,525 00	
Orrin N. Carter (expense, expert witnesses).....	850 00	
	<hr/>	\$2,409 05

## GENERAL ACCOUNT.

Chicago Edison Co. (electric lighting)....	\$37 24
--	---------

## POLICE DEPARTMENT.

L. H. Manson, (two driving horses).....	\$175 00	
A. F. Risser & Co. (saddle, blanket, etc.).....	13 13	
	<hr/>	\$188 13

Grand total..... \$77,573 06

Mr. Eckhart, seconded by Mr. Russell, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Cooley, Eckhart, Gilmore, Kelly,

Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 384, Engineering Department, (furniture).....	\$171 75
No. 385, Engineering Department, (furniture).....	79 75
No. 386, Engineering Department, (furniture).....	5 45
No. 387, Engineering Department, (transits, etc.).....	298 00
No. 388, Engineering Department, (safes).....	340 00
No. 389, Engineering Department, (sundry repairs).....	15 90

Total..... \$910 85

Mr. Kelly, seconded by Mr. Gilmore, moved that Requisitions No. 384 to 389, inclusive, for the Engineering Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 384 to 389, inclusive, for the Engineering Department, as read and shown above, allowed.

## MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of January, 1894.

The same was read, and, by unanimous consent, was ordered printed and, with accompanying classified statement, placed on file.

The following is

## THE REPORT:

“CHICAGO, Feb. 16, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the reports of Divisions 1, 2 and 3, showing the detailed operations of the Engineering Department for the month of January, including table giving the rate of

progress on the several contracts; also a classified statement of expenses in the usual form.

Expenses for the month of January were as follows:

Contractors estimates.....\$173,542.21  
Pay rolls..... 12,049.59  
Material, etc..... 620.87

Total.....\$186,212.67

I estimate the expenses for February will be \$185,000.00, including contractors' estimates.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Accompanied by classified statement.)

"CHICAGO, Feb. 16, 1894.

*Isham Randolph, Esq., Chief Engineer*

DEAR SIR—I herewith transmit my monthly report embracing a "Statement showing amount of work done during the month of January, 1894;" "Table of amount of work done (including river diversion) and condition of work on contracts, as shown by estimates of February 1, 1894," and "Force Report—daily average, January, 1894."

I have also prepared and placed in the Board room a large progress chart, showing the relative progress made upon each section and upon which the proportionate amount of work done each month will hereafter be entered.

STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE  
MONTH OF JANUARY, 1894.

SECTIONS.	Amo't Done During January.	Average Monthly Requirement.	Deficiency for January.	Excess Over Monthly Requirement.	Per Cent. of Average Requirement.
F.....	\$ 4,767 10	\$ 10,681 80	\$ 5,914 70	.....	.45
E.....	1,949 20	14,929 00	12,979 80	.....	.13
D.....	8,525 36	15,286 51	6,761 15	.....	.56
C.....	4,069 96	13,352 40	9,282 44	.....	.30
B.....	3,513 24	11,775 18	8,261 94	.....	.30
A.....	3,984 91	24,488 17	20,503 26	.....	.16
1.....	2,232 36	21,435 18	19,202 82	.....	.10
2.....	18,100 00	19,378 98	1,278 98	.....	.93
3.....	19,600 00	28,251 42	8,651 42	.....	.69
4.....	18,032 00	20,519 66	2,487 66	.....	.88
5.....	4,428 00	13,202 28	8,774 26	.....	.33
6.....	2,484 00	14,743 47	12,259 47	.....	.17
7.....	9,436 50	17,405 63	7,969 13	.....	.54
8.....	8,745 75	21,295 08	12,549 33	.....	.41
9.....	7,382 40	19,232 36	11,849 96	.....	.38
10.....	33,085 00	22,472 29	.....	\$10,612 71	1.47
11.....	22,744 75	19,493 74	.....	3,251 01	1.16
12.....	15,216 00	19,172 88	3,956 88	.....	0.79
13.....	20,780 50	18,588 65	.....	2,191 85	1.12
14.....	.....	19,891 82	19,891 82	.....	0.00
Totals.....	\$209,077 03	\$365,596 48	\$172,575 02	\$16,055 57	0.54



TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVERSION) AND CONDI

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION.	
		<i>Glacial Drift</i>	<i>Solid Rock.</i>	<i>Glacial Drift</i>	<i>Solid Rock.</i>
		Cubic Yards.	Cubic Yards.	Cubic Yards.	Cubic Yards.
I	Christie & Lowe.....	3,874			
F	Ricker, Lee & Co.....	284,784		140,761	
E	Streeter & Kenefick.....	469,163		95,718	
D	E. D. Smith & Co.....	259,829			
C	Western Dredging & Imp. Co.....	153,147		162,537	
B	Heldmaier & Neu.....			204,626	
A	Heldmaier & Neu.....	103,871		108,786	
1	Alfred Harlev.....	107,600		5,876	
2	McArthur Bros.....	127,200		29,500	
3	Gilman & Co.....	129,510			
4	McArthur Bros.....	168,200			
5	Agnew & Co.....	235,100			
6	Agnew & Co.....	145,300		111,900	
7	Agnew & Co.....	79,500	75,900	96,700	41,000
8	Agnew & Co.....	7,500	88,300	52,900	95,500
9	Agnew & Co.....	50,700	90,200	37,700	16,000
10	E. D. Smith & Co.....	26,400	258,600	27,400	56,500
11	Mason, Hoge & Co.....	40,300	295,800	5,756	11,483
12	Mason, Hoge & Co.....	27,400	315,000		
13	Mason, Hoge & Co.....	32,822	404,600		
14	Smith & Eastman.....	43,066	119,305		
Totals.....		2,475,266	1,647,705	1,080,160	220,483

Main Channel, glacial drift.....  
 Main Channel, solid rock.....  
 River Diversion, glacial drift.....  
 River Diversion, solid rock.....

Total amount required to be done February 1, 1894.....  
 Total amount done February 1, 1894.....

Amount short as per contracts.....  
 Shortage reduced by special work done on River Diversion as per  
 Net shortage.....

Total value of work done February 1, 1894.....  
 Reserved..... { 12½ per cent.....  
 { 10 per cent.....

Total value of vouchers paid including those of February, 1, 1894...

## TION OF WORK ON CONTRACTS, AS SHOWN BY ESTIMATES OF FEBRUARY, 1, 1894.

Total value of work done to February 1, 1884 on each section.	Total value of work required to be done to February 1, 1884.	Amount behind as per contracts.	Amount ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary January 1, 1884, to time of completion.	Progress made during the mo. of January, 1884.
\$ 968 50	\$ 2,840 00	\$ 1,871 50		\$11,360 00	\$11,360 00	\$ 968 50
96,316 94	80,672 06		\$15,644 88	11,524 58	10,751 37	6,293 04
155,342 28	108,764 04		46,578 24	15,537 72	13,434 51	5,329 50
68,692 29	107,005 57	38,313 28		15,286 51	16,457 70	8,595 86
74,185 75	101,819 55	27,633 80		14,545 65	15,181 13	4,069 97
55,249 02	95,890 93	38,641 91		13,412 99	14,347 39	
65,126 21	179,689 44	114,563 23		25,669 92	29,116 18	4,155 82
30,638 52	214,738 80	184,100 28		21,473 88	26,625 72	2,232 36
65,788 00	232,547 76	166,759 76		19,378 98	24,040 90	18,100 00
51,265 70	76,171 00	24,905 30		28,188 65	27,764 65	19,600 00
72,694 00	266,755 71	194,061 71		20,519 67	25,892 29	18,032 00
63,477 00	165,028 25	101,551 25		13,202 26	16,347 24	4,428 00
69,444 00	194,992 25	125,548 25		15,599 38	19,410 66	2,484 00
131,733 50	234,715 50	102,982 00		18,777 24	21,951 52	9,436 50
153,094 50	328,179 88	175,085 38		23,441 42	29,169 63	8,745 75
104,651 80	277,673 06	173,021 26		19,833 79	25,568 28	7,382 40
265,530 00	331,526 02	65,996 02		23,680 43	26,373 31	33,085 00
257,453 72	277,305 56	19,851 84		19,807 54	20,621 43	22,744 75
257,926 00	268,420 32	10,494 32		19,172 88	19,406 36	15,216 00
310,972 22	260,241 10		50,731 12	18,588 65	16,855 10	20,780 50
95,705 85	278,485 48	182,779 63		19,891 82	25,709 24	
\$2,446,255 80	\$4,081,462 28	\$1,748,160 72	\$112,954 24	\$388 893 96	\$436,384 61	\$211,679 45

## Cubic Yards.

.....	2,475,266
.....	1,647,705
.....	1,080,160
.....	220,483
.....	\$4,081,462 28
.....	2,446,255 80
.....	\$1,635,206 48
previous statements.....	115,421 85
.....	\$1,519,784 63
.....	\$2 446,255 80
.....	\$296 583 02
.....	53,798 00
.....	350,381 02
.....	\$2,095,874 78

## FORCE REPORT—DAILY AVERAGE, JANUARY, 1894.

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Char-nelers.	Air Com-pressors.	Canilever Derricks.	Steam Derricks.	Locomo-tives.	Cars.	Dredges.	Pile Drivers.	Cable ways.
I.	20	10	...	1	...	...	...	...	...	...	...	...	...	...	...
H.	11	9	...	...	...	...	...	...	...	...	...	...	...	...	...
G.	13	27	...	...	...	...	...	...	...	...	...	...	...	...	...
F.	74	...	1.9	2.7	...	...	...	...	...	...	3	18.5	...	...	...
E.	65	3	1.7	1.9	...	...	...	...	...	...	3	22.8	...	...	...
D.	94	5	2	2.1	...	...	...	...	...	...	4	58	...	2.1	...
C.	80	5	2	1	...	...	...	...	...	...	4	20	...	...	...
A.	77	2	...	...	...	...	...	...	...	...	4	...	2	...	...
1.	38	6	1.4	2	...	1.4	...	...	...	...	...	...	...	...	...
2.	282	21	...	2	...	...	...	...	...	...	...	...	...	...	...
3.	278	16	...	2.6	...	...	...	...	...	...	...	...	...	...	...
4.	269	28	...	4.7	...	...	...	...	...	...	...	...	...	...	...
5.	65	1	1.5	3.7	1	...	...	...	...	8	1.4	...	...	...	...
6.	37	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7.	116	8	...	2.3	3.1	...	2.2	...	1.2	...	...	...	...	...	...
8.	76	9	...	4	1.9	1.1	1.7	...	...	...	...	...	...	...	...
9.	151	1	...	3.8	6.5	1	2.3	...	1.3	...	...	...	...	...	...
10.	335	1	...	3.1	12	2.8	6	9	2.4	...	...	...	...	...	...
11.	148	2	...	4	12	...	5	...	1.5	...	...	...	...	...	7
12.	100	2	...	2	5.4	...	3.6	...	1.4	...	...	...	...	...	...
13.	193	3	...	4	11	...	6.7	1	3	...	...	...	...	...	...
Totals.	2522	153.6	10.5	42.4	52.0	6.3	27.5	1.9	10.8	.8	15.4	99.3	2.1	2.1	7

It should be observed that the low percentages on Sections F and E, as shown in first table above, are caused partially from the fact that these two sections are in advance of their contract requirements; and on Sections A and B hydraulic dredging operations were suspended on account of cold weather.

Sections 8 and 9 have been transferred to other contractors who are putting on large plants and may be expected to bring the work up to progress requirements this year.

There is no reason why all delinquent sections should not recover their lost ground during the present season, and all contractors have been notified that the progress required by their contracts will be insisted upon.

Respectfully submitted,

(Signed)

U. W. WESTON,  
Supt. of Construction."

"CHICAGO, Feb. 5, 1894.

Mr. Isham Randolph, Chief Engineer :

DEAR SIR—The work of Division 2 for the month of January, 1894, was as follows:

The rip rap was placed on the levees at the north and south ends of spillway.

The excavation of the surplus material east and west of the spillway was completed. The widening and strengthening of the levee from the spillway to the Santa Fe Railroad track was completed.

Continued the cross sectioning of the territory along the line of the river diversion channel. This work is now completed from the head of Goose Lake to Gary.

The detailed survey of the left bank of the Illinois and Michigan Canal and the Desplaines River, from the Elgin, Joliet and Eastern Railroad crossing to McDonough street, was completed. The notes of the survey are being reduced and platted.

The Sag water gauge was reset. A water gauge was set on the north abutment of the spillway.

Preparations were made to take discharge measurements above the spillway and at Lemont.

The latter part of the month the topographical party was assigned to the District between Bridgeport and Corwith getting additional topography along the right of way of the Sanitary District.

Considerable time was given to the preparation of plans and specifications for the southern extension of the Main Channel, for the extension of the Main



Channel from Corwith to Robey street, and for the reconstruction of the Chicago and Calumet Terminal Railway bridge over the Desplaines River.

The maintenance and records of water gauges were continued.

Some additional work was done on the reduction of notes pertaining to the Illinois River floods.

The expense for February will approximate to that of January.

Very respectfully,

(Signed) THOS. T. JOHNSTON,  
*First Assistant Chief Engineer.*

—  
"CHICAGO, Feb. 14, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of January, 1894.

Prepared for the Law Department several copies of the official plans, one map from Bridgeport to Joliet showing the right of way and the location of the works in course of construction, two copies of the map marked "Exhibit C" showing the ordinance lines and tracings of right of way tracts 125, 126, 130, 132 and 166.

Commenced work on the Atlas Books of the right of way.

Finished the original drawing and tracing of part of Sections 25 and 36, Township 39 North, Range 13 East, showing the intersection of the Main Channel and Western avenue boulevard.

Made a plat showing the soundings through the soft material on Section A near the junction of the walled and un-walled channels, a large scale tracing showing the location of the Main Channel on Sections 6 and 7, and the original drawing and tracing of part of sheet 23 showing the location of Main Channel and levees on Section 14.

Platted the notes of all surveys between Corwith and the Bridgeport Pumping Works on a large scale map for locating the Main Channel.

Prepared maps showing the lands owned by the Sanitary District in the Counties of Cook, Will and Du Page for the use of the County Clerk's offices.

Reduced the notes of the last stadia survey between Western avenue and Robey street, and continued platting on the 100 foot scale contour sheets 16, 18

and 19, and on all the parts of the main triangulation map.

Work was continued on the Sanitary District map, and the progress charts and profiles.

The expenses for February will be the same as for the past month.

Yours respectfully,

(Signed) EDGAR WILLIAMS,  
*Second Assistant Chief Engineer."*

#### WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District, for the week ending February 17, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Feb. 21, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending February 17, 1894, as the same have been reported to me:

Engineering Department.....	112
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	37

Total employes..... 162

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
*Clerk."*

#### MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of January, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Feb. 21, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to here-

with report that the total amount expended on account of and charged to the Clerical Department during the month of January, 1894, was \$1,654.66, divided as follows:

Salaries.....	\$1,612.50
Stationery.....	33.91
General expenses.....	8.25
Total.....	<u>\$1,654.66</u>

There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$950.

The total amount expended and charged to the General Account, during the month of January, 1894, was \$10,228.97, divided as follows:

Salaries.....	\$5,066.67
Advertising.....	609.00
Printing and Stationery.....	234.65
Engraving and Printing Bonds...	1,225 00
Rent and Janitor Service.....	2 190.00
History of District.....	133.56
Vaccine Points.....	117 00
Damages, personal injuries.....	497 00
General expenses.....	156.09
Total.....	<u>\$10,228.97</u>

There are no outstanding liabilities against the General Account, and the expenses for the present month will be about \$5,500.

During the month of January, 1894, there were warrants authorized and drawn against the various accounts as follows:

Engineering Department.....	\$ 20,496.24
Clerical Department.....	1,654.66
Law Department.....	6,140.39
Treasury Department.....	352.33
General Account.....	10,228.97
Engineering Department (Construction Account).....	194,458.08
Law Department (Land Acc't)...	37,528.00
Police Department.....	5,801.95
Total.....	<u>\$276,660.62</u>

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

#### SUSPENSION OF CLAUSE "J" OF CONTRACT FOR SECTION C OF MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer, recommending that the operation of Clause "J" of the contract be suspended for Section C, for which the Western Dredging and Improvement Company is the contractor; and the report was read.

In connection with the report, Mr. Kelly presented a resolution authorizing

and directing the Chief Engineer not to enforce Clause "J", as provided in the resolution and as recommended in his report; and the resolution was read.

Mr. Kelly, seconded by Mr. Cooley, moved that the report be adopted, ordered printed and placed on file, the resolution adopted, and the Chief Engineer directed in accordance with same.

On roll-call the vote stood: Yeas—Messrs. Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the resolution adopted, and the Chief Engineer directed in accordance with same.

The following is

#### THE REPORT, WITH ACCOMPANYING RESOLUTION:

"CHICAGO, Feb. 20, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Carrying out the principle set forth in my communication to your Honorable Body, dated January 24th, (page 1718 of Proceedings) relating to "Clause J" of the contract, with which you are familiar, I respectfully recommend that the operation of said Clause J be now suspended so far as it affects the Western Dredging & Improvement Company, contractors for Section C. The said company has made such progress, as in my judgment, makes it worthy of this concession on your part, and the equipment now upon the work is a guaranty of good faith and intention as to future progress.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

The following is

#### THE RESOLUTION:

"WHEREAS, The progress of the work and equipment upon Contract Section C, of the Main Channel, are such, that in the opinion of the Chief Engineer, the interests of the District do not require the enforcement of Clause "J" of the contract in relation to said section at the present time; therefore,

*Resolved*, That the Chief Engineer be and he is hereby directed not to enforce



Clause "J" of the contract in relation to said section until directed so to do by this Board."

AGREEMENT FOR MODIFICATION OF CONTRACT FOR SECTION C.

The Clerk presented a report from the Chief Engineer, transmitting agreement in duplicate, with reference to the modification of the original contract for Section C, for which the Western Dredging & Improvement Company is the contractor, making provision, among other things, for the saving of certain valuable building sand; and the report, with accompanying agreement, was read.

Mr. Cooley, seconded by Mr. Russell, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, the accompanying agreement approved, and the President and Clerk authorized and directed to execute the same, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, the accompanying agreement approved, and the President and Clerk authorized and directed to execute the same, on behalf the District, as provided in the report.

The following is

THE REPORT, WITH ACCOMPANYING AGREEMENT:

"CHICAGO, Feb. 20, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith a form of agreement under which the original contract for Section C is so modified as to admit of the construction which has been determined upon as best adapted to that portion of the Main Drainage Channel on said section, which is located in the channel of the Desplaines River.

And further provision is also made for saving certain valuable building sand found upon the section within the prism of the Main Channel, and making the same available for the work of this District at a moderate cost.

Except in the particulars specified the

original contract is in nowise affected by this agreement.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Transmitting agreement.)

AGREEMENT:

"*This Agreement, Made this . . . . . day of . . . . . A. D. 1894, by and between the Sanitary District of Chicago, party of the first part, and the Western Dredging and Improvement Company, party of the second part, witnesseth; that,*

WHEREAS, It has developed and been shown that, by reason of the unstable character of the material overlying the solid stratum on that portion of Section C, included between Station 592 and Station 610, the specifications under which the contract for said Section was let, are not applicable to the conditions which actually obtain upon the portion of said section aforesaid; and,

WHEREAS, It is essential to the proper prosecution of the work that an understanding shall be arrived at by and between the parties hereto as to the methods under which this portion of the work shall be done and the condition in which it shall be left when completed; and,

WHEREAS, Also in the prosecution of the construction work of first party along the line of its main channel large quantities of sand suitable for use in making cement mortar must be used, and sand proper for such use is costly and difficult to obtain, and it appears that there is a large deposit of good sand suitable for such use upon Contract Section C which may be saved to the great benefit of first party.

*Now, Therefore, In consideration of the reciprocal promises herein contained, the parties hereto covenant and agree as follows:*

*First*—It is agreed that the party of the second part shall excavate all muck and soft material capable of being removed by the process of hydraulic dredging from the area adjacent to the true prism of the earth channel on said Section C so as to leave a reasonable berm or bench over the firm material beneath; said reasonable berm or bench being understood to mean a width equal to five times the depth or thickness of the overlying unstable stratum measured to the surface of the hard material, except as



such width may be limited by adjacent spoil banks of the Illinois and Michigan Canal, or any other deposit or stratum of material of a stable character. Said extra width shall be excavated at the prices fixed in the contract for glacial drift, and all material removed within said limits shall be paid for at said rate.

*Second*—The material removed by the hydraulic dredge shall be wasted at a safe distance, not exceeding two thousand (2,000) feet, to be determined by the Chief Engineer of first party, and the sides of the excavation in the muck shall be revetted by hard material taken from the Main Channel in such manner as may be necessary to prevent the same from sloughing out or encroaching upon the said berm, or sliding toward the Main Channel when the pit shall be pumped out for the purpose of excavating the firm material below; it being understood and agreed that the said berm shall be built up with suitable material from the Main Channel so as to form the sides of the said channel to the prescribed slope and cross-section and as said Chief Engineer may direct. For all material excavated beyond the bounds of the standard prism subject to the limitations hereinbefore provided, second party is to be paid at the rate of twenty-three and one-half ( $23\frac{1}{2}$ ) cents per cubic yard, the same being the price fixed in the original contract for the excavation of this section.

*Third*—Wherever in the excavation of the Main Channel on said Section C deposits of sand, which, in the opinion of the Chief Engineer of first party, is suitable for cement mortar, shall be found, and said Chief Engineer shall so direct, second party hereby agrees to strip the overlying earthy stratum from the sand and remove the same so as to keep the sand free from loam, clay, or other foreign substances not now imbedded therein, and to excavate the sand or so much thereof, subject to limitations hereinafter stipulated, as may prove suitable for making mortar, and deposit the same upon a suitable surface, to be prepared by it, adjacent to the Illinois and Michigan Canal, where it may be conveniently loaded upon boats for removal. The sand to be inspected from time to time by said Engineer and only such portions of it deposited upon the area reserved for accepted quality as he may direct.

*Fourth*—The minimum quantity of sand to be accepted by first party shall equal 50,000 cubic yards, provided that volume of suitable quality shall be found, and if it be found in greater quantity,

then the second party may continue to excavate and deposit the same upon the area provided for accepted sand until formally notified by said Engineer to desist. For all sand excavated and deposited as herein provided second party shall be paid twelve and one-half ( $12\frac{1}{2}$ ) cents per cubic yard, measured in excavation, in addition to the price of twenty-three and one-half ( $23\frac{1}{2}$ ) cents provided in the original contract for excavation on said Section C. Said original contract for said Section C is in nowise altered or affected except in the particulars herein specified; as to all other matters the same is to remain in full force and effect.

*In witness whereof*, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk and its corporate seal to be hereto affixed, and the said Western Dredging and Improvement Company has caused this agreement to be signed by its President and Secretary and its corporate seal to be hereto affixed."

#### MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of January, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Feb. 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith the monthly report for January, 1894. The total amount paid out by this Department during said month is as follows:

#### Salaries.

Attorneys.....	\$3,100 02
Office force.....	537 50
	————— \$3,637 52

#### General Expenses.

Right of way.....	\$ 667 40
Court costs.....	258 90
Legal services.....	1,485 00
Printing and stationery	29 80
Sundries.....	61 77
	————— \$2,502 87

*Land Account.*

Right of way.....	*\$26,884 00
Total.....	<u>\$32,974 39</u>

\*Note—The above amount includes the sum of \$11,552.00, which has already been reported in my annual report, but does not include the sum of \$22,246.00, being amount of voucher drawn in favor of Thomas Tully, which is still unpaid.

The suit of the District vs. Tedens et al., tried in Du Page County in August, 1892, has been reversed on purely legal grounds, apart from the question of the value of the land taken, and remanded for a new trial. A petition, however, has been filed in the Supreme Court for a re-hearing.

In the suit of the District vs. Piper, Cook et al., tried in December, 1892, after verdict and order of judgment entered, an appeal was prayed and allowed, but after same had been perfected an order was entered directing the bank in which the amount of the verdict had been deposited to pay the money over to defendant; an appeal from this order was taken to the Appellate Court. A decision rendered during the month sustains the position taken by the District, that no such order should have been made, but as the money had already been paid over and the District was in possession of the land there practically remained nothing for the Appellate Court to act upon.

Some time ago the District was made defendant in two separate suits brought by creditors of certain contractors wherein they sought to reach funds in the hands of the District through process of garnishment. A motion was made in each suit to dismiss as to the Sanitary District on the ground that it was not subject to garnishment by reason of being a municipal corporation. The motion in each case was allowed by the Judges of the Circuit Court, before whom it came up for argument, each Judge holding that the District was not subject to garnishment.

In the case of the District vs. Ogden, Cook et al., for the condemnation of about fourteen acres of land in Section 4, Township 38 North, Range 13, East of the Third Principal Meridian, after a trial beginning January 9th and lasting three weeks, the jury were unable to reach a verdict.

The preparation of the arguments in the case of the District vs. Burke et al.

has gone forward actively during the month.

Much time has been given by the Department to the consideration of the questions coming up in connection with the assignment of the contracts for Section five (5), eight (8) and nine (9), and the preparation of the necessary papers connected therewith.

Matters connected with Sections one (1), six (6) and seven (7), and with the letting of contracts for work this side of Corwith will demand the attention of the Department during the present month.

Respectfully submitted,

(Signed) ORRIN N. CARTER,

*Attorney."*

#### REPORT ON BUILDING OF WESTERN STONE COMPANY LEVEE ON SECTION 10.

The Clerk presented a joint report from the Chief Engineer and Attorney, with reference to the building, by the Western Stone Company of an embankment on the north side of the river diversion on Section 10, and recommending the payment of the bill of said Company for the construction of the same; and the report was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report be ordered printed and referred to the Committee on Judiciary, with instructions to report back at the next meeting.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

#### THE REPORT:

"CHICAGO, Feb. 21, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In a communication of December 19, 1892, (page 961 of the Proceedings) addressed to President Wenter by B. J. Moore, President of the Western Stone Company, attention was called by the latter to the necessity of the District providing an embankment on the north side of the river diversion channel on Section ten (10), as the levee on the south side of same would otherwise in times of flood back the water up into the quarry of the Western Stone Company, known as No. 5.

This communication was referred by your Honorable Body to the Chief Engineer and Attorney.



The building of a levee on the north side of said river diversion, as suggested, was not specified in the contract for said Section ten (10), and the same, had it been constructed by the contractor, would have had to come under the head of extra work.

As there were no floods of unusual magnitude in the spring of 1893, the matter of this levee was not urgent, and many other important matters were constantly pressing for attention, so that no report has been made hitherto upon the subject matter of Mr. Moore's communication. Meanwhile the Western Stone Company having a favorable opportunity for the carrying on of the work, and having its own ideas as to the position and construction of the levee, proceeded to have the work done, and the levee has been built by it of such dimensions as in its judgment will be sufficient to keep back the flood waters and protect its quarry.

A bill for this work has been sent to the Chief Engineer amounting to fourteen hundred and 58-100 (\$1,400.58) dollars. This has been examined by the Chief Engineer and is found to be within the limits of the estimated cost of the work had it been done by the contractor as extra work.

Inasmuch as the District would have been responsible for any damage done by reason of flood waters turned into said quarry by reason of improvements made by it, we think it should properly pay the reasonable expense of protecting same. We accordingly recommend that the bill for constructing the levee on the north side of the river diversion in Section ten (10) rendered by the Western Stone Company be approved by your Honorable Body, and the Clerk be authorized and directed to pay same on the voucher of the Chief Engineer.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer.  
ORRIN N. CARTER,  
Attorney."

#### CONSTRUCTION OF ROADWAY FROM CALIFORNIA AVENUE TO SUMMIT.

The Clerk presented a report from the Marshal, with reference to the building and maintenance of a roadway from California avenue to Summit, and making certain recommendations concerning the same; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly,

moved that the report be ordered printed and referred to the Joint Committee on Finance and Engineering.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

#### THE REPORT:

"CHICAGO, Feb. 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Agreeable to an order passed January 24, 1894, by your Honorable Body, report to be found on page 1716 of the Proceedings of the Board, I have conferred with nearly all of the contractors with reference to the building and maintenance of a roadway through the District that should accommodate all parties. Without an exception, so far as they have been seen, they readily acquiesced in my demand for their co-operation and assistance, but in all cases have refused to assume entire control and responsibility of the work. I therefore submit the following specific recommendation:

*First*—That the contractors be requested and required to furnish the teams and men necessary to construct a suitable roadway from California avenue to Summit, and that all contractors be requested and required to furnish the teams and men when necessary to improve and maintain a roadway throughout the District, provided that contractors shall in no case be asked or expected to furnish assistance in any other place than opposite their respective sections.

*Second*—That the top of the spoil bank north of the Illinois and Michigan Canal be selected for the roadway from Kedzie avenue to Summit, and if permission is necessary from the Canal Trustees, that it at once be obtained.

*Third*—That the position of roadmaster be made permanent at a salary of \$60 per month; that he be required to furnish a horse, for the use of which the District shall pay not to exceed \$1 per day; that the District furnish a light dump cart and suitable harness; that such labor as may be required to make trifling repairs such as repairing ruts, removing obstructions, repairing culverts, etc., be employed from time to time as it may be required.

Respectfully submitted,

(Signed) EDWARD WILLIAMS,  
Marshal."



PURCHASE OF "SCHARF, CODY, ET AL"  
LANDS IN MANCHESTER.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from Fred Scharf, William G. Cody, Clarence D. and Hollis P. Brown, Theodore Prentiss and Daniel Jones, of certain right of way lands in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands, on the vouchers of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay Fred Scharf, William G. Cody, Clarence D. and Hollis P. Brown, Theodore Prentiss and Daniel Jones, on the vouchers of the Attorney, for the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, and recommendations made therein concurred in, and the Clerk authorized and directed to pay Fred Scharf, William G. Cody, Clarence D. and Hollis P. Brown, Theodore Prentiss and Daniel Jones, on the vouchers of the Attorney, for the said right of way lands, as provided in the report.

The following is

THE REPORT:

"CHICAGO, Feb. 21, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with Fred Scharf for the purchase from him for the corporate purposes of this District of the land hereinafter described, for the sum of five hundred (\$500.00) dollars;

With William G. Cody for the purchase from him for the corporate purposes of this District of the land hereinafter described, for the sum of five hundred (\$500.00) dollars;

With Clarence D. Brown for the purchase from him for the corporate pur-

poses of this District of the land herein-after described, for the sum of one thousand (\$1,000.00) dollars;

With Hollis P. Brown for the purchase from him for the corporate purposes of this District of the land hereinafter described, for the sum of five hundred (\$500.00) dollars;

With Theodore Prentiss for the purchase from him for the corporate purposes of this District of the land hereinafter described, for the sum of eighteen thousand five hundred (\$18,500.00) dollars.

With Daniel Jones for the purchase from him for the corporate purposes of this District of the land hereinafter described, for the sum of one thousand (\$1,000.00) dollars.

Your Committee recommends that the Clerk of this District be directed to pay on the vouchers of the Attorney to said Fred Scharf, the sum of five hundred (\$500.00) dollars, in full payment for the following described land, to-wit :

Lot thirty-three (33) in Sabath's Re-subdivision of Block four (4) of Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal, of the east half (E.  $\frac{1}{2}$ ) of the northeast (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) North, Range thirteen (13), east of the Third Principal Meridian.

To said William G. Cody, represented in Chicago by L. H. Peirce, agent, the sum of five hundred (\$500.00) dollars, in full payment for the following described land, to-wit :

Lot sixteen (16) in Block two (2) of Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal, of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) North, Range thirteen (13), east of the Third Principal Meridian.

To said Clarence D. Brown, represented in Chicago by L. H. Peirce, agent, the sum of one thousand (\$1,000.00) dollars, in full payment for the following described land, to-wit :

Lots fourteen (14) and fifteen (15), in Block two (2) in Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal, of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39)

North, Range thirteen (13), east of the Third Principal Meridian.

To said Hollis P. Brown, represented in Chicago by L. H. Peirce, agent, the sum of five hundred (\$500.00) dollars, in full payment for the following described land, to-wit:

Lot thirteen (13) in Block two (2) in Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal, of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) North, Range thirteen (13), east of the Third Principal Meridian.

To said Theodore Prentiss, represented in Chicago by L. H. Peirce, agent, the sum of eighteen thousand five hundred (\$18,500.00) dollars in full payment for the following described land, to-wit:

Lots one (1) to twelve (12), both inclusive, in Block two (2). Lots twenty-three (23) to thirty-two (32), both inclusive, in Block one (1), and Lots one (1) to ten (10), both inclusive, in Block one (1) in Manchester, said Manchester being a subdivision of that part lying north (N) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) North, Range thirteen (13), East of Third Principal Meridian.

To said Daniel Jones, represented in Chicago by L. H. Peirce, agent, the sum of one thousand (\$1,000.00) dollars in full payment for the following described lands, to-wit:

Lots nineteen (19) and twenty (20) in Block one (1) in Manchester, said Manchester being a subdivision of that part lying north (N) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36) North, Township thirty-nine (39) North, Range thirteen (13), East of the Third Principal Meridian.

All of the above described lands lying and being situate in the County of Cook, in the State of Illinois.

Respectfully submitted,

(Signed)

B. A. ECKHART,

*Chairman.*

W. H. RUSSELL,

THOMAS KELLY,

L. E. COOLEY,

*Joint Committee on Finance and Engineering.*

# CLAIM BY CANAL COMMISSIONERS FOR LAND TAKEN.

The Clerk presented a communication, addressed to President Wenter, by Chief Clerk Arnold, of the Board of Commissioners of the Illinois and Michigan Canal, with reference to a parcel of land near the Ogden Dam, claimed by the said Board of Commissioners and said to have been taken by the District; and the communication was read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the communication be ordered printed and referred to the Committee on Judiciary.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

## THE COMMUNICATION:

“STATE OF ILLINOIS,  
Board of Canal Commissioners, }  
Lockport, Ill. Feb. 17, 1894. }

*Hon. Frank Wenter, President Sanitary District, Chicago, Illinois:*

DEAR SIR—The Board of Canal Commissioners at its meeting on the 3rd inst. requested me to notify you that the State of Illinois is the owner of a piece or parcel of land near Ogden Dam, two (2) rods in width by 180 rods in length, containing 2 $\frac{1}{2}$  acres, situate on Sections 1 and 12 in Township 38 North, Range 12, East, a portion of which the Sanitary District of Chicago has recently taken possession of without negotiating with the Canal Commissioners therefor.

Kindly give this matter immediate attention, as it is the desire of the Board to obtain a speedy settlement.

Yours truly,

(Signed)

MERRITT M. ARNOLD,

*Chief Clerk.”*

OFFICES TO BE CLOSED ON FEBRUARY 22, 1894.

Mr. Russell presented an order, directing that the offices of the District be closed on February 22, 1894, the same being “Washington’s Birthday”—a legal holiday; and the order was read.

Mr. Russell, seconded by Mr. Gilmore, moved the adoption of the order.

The motion prevailed, and the Presi-

dent declared the offices of the District ordered closed on February 22, 1894.

The following is

THE ORDER:

*“Ordered,* That the offices of the Sanitary District of Chicago, be and they are hereby ordered closed on Thursday, Feb-

ruary 22, 1894, the same being ‘Washington’s Birthday,’—a legal holiday.”

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Russell, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*



February 21,]

—1793—

[1894.

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

FEBRUARY 28, 1894.

#### OFFICIAL RECORD.

*(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and eleventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, February 28, 1894, at 1:30 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6) members, were present.

#### MINUTES.

The minutes of the regular meeting held February 14, 1894, of the adjourned session of the same regular meeting, held

February 16, 1894, and of the regular meeting held February 21, 1894, were approved as printed, on motion of Mr. Boldenweck, seconded by Mr. Eckhart.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (February, 1894).....	\$ 500 00
Eng. Dept., Div. No. 1, (February, 1894).....	6,998 00
Eng. Dept., Div. No. 1, Tow-path, (February, 1894).....	120 00
Eng. Dept., Div. No. 2, (February, 1894).....	1,972 50
Eng. Dept., Div. No. 3, (February, 1894).....	1,919 00
Eng. Dept., Div. No. 4, (February, 1894).....	340 00

Eng. Dept., discharged men's roll, (February, 1894).....	\$ 53 33	
		\$11,902 83
Clerical Dept., Clerk's roll, (February, 1894)		\$ 891 66
Treasury Dept., Treasurer's roll, (February, 1894).....		166 67
Law Dept., Attorney's roll, (February, 1894) \$	1,536 67	
Law Dept., Joliet roll, (February, 1894).....	333 33	
		\$ 1,870 00
General Account, Sanitary Inspector's roll, (February, 1894)..... \$	200 00	
General Account, Trustees' roll, (February, 1894).....	2,333 33	
		\$ 2,533 33
Police Dept., Marshal's roll, (February, 1894)		3,038 32
Total.....		\$20,402 81

## CLERICAL DEPARTMENT.

Cameron, Amberg & Co. (stationery).....	\$ 2 78
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## LAW DEPARTMENT.

Jos. Donnersberger, (expert services, February, 1894)..... \$	300 00
Camilla M. Chapin, (stenographer).....	15 45
Orrin N. Carter (expense).....	79 16
	\$ 394 61

## GENERAL ACCOUNT.

The Chicago Deposit Vault Co. (janitor services, January, 1894).....	\$ 80 00
Grand total.....	\$20,880 20

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisition:

No. 922, Police Department, (kerosene oil).....	\$25 00
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Mr. Eckhart, seconded by Mr. Kelly moved that Requisition No. 922, for the Police Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 922, for the Police Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District, for the week ending February 24, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, Feb. 28, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employees in each department for the week ending February 24, 1894, as the same, have been reported to me :

Engineering Department.....	108
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	37
Total employees.....	158

Respectfully submitted,  
(Signed) THOS. F. JUDGE,  
Clerk.”

## COMPARATIVE ESTIMATES ON COST OF TAIL RACE—LOCKPORT TO JOLIET.

The Clerk presented a report from the Chief Engineer, accompanied by one enclosure, with table, being a comparison of estimates for the extension of the Main Channel and a tail race between Lockport and Joliet; and the report and enclosure were read.

Mr. Eckhart, seconded by Mr. Russell, moved that the report and enclosure, with table, be ordered printed and referred to the Joint Committee on Engineering and Finance, with instructions to report back at the next meeting.



The motion prevailed unanimously and the report and enclosure, with table, were ordered printed and so referred.

The following is

THE REPORT, WITH ENCLOSURE:

"CHICAGO, Feb. 28, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith a comparison of estimates submitted under date of April 3, 1893, and the estimate recently prepared under your order of October 4, 1893, covering construction between the controlling works and the Wier dam opposite Station 1620.

Very respectfully,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(One (1) enclosure, with table.)

(Enclosure.)

"CHICAGO, Feb. 27, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—Pursuant to your order of October 4, 1893, (page 1497 of Proceedings), I have caused estimates to be made on the construction of the necessary works of this District under Propositions 1 and 3, which are identical, between the controlling works at or near Station 1520 and Station 1620, where, under Proposition 3, it is proposed to spill over a dam into the existing channel of the Desplaines River. I find the estimates which have been prepared under this order so radically at variance with those heretofore submitted for this stretch of the work, that I deem it proper to lay them before you and let you make the comparison before carrying the office work any further. We have now very full and complete topographical surveys of this portion of the line, from which the absolute contours have been plotted. We have borings showing the depth of the earth stratum overlaying the rock, and we know with reasonable certainty the character of the upper stratum of the rock, all of which information is essential in preparing estimates which can be regarded as reliable.

I submit herewith the estimate which was presented by my predecessor, under date of April 3, 1893, (pages 1158-9 of Proceedings), and in corresponding columns the estimate which I have had

made. Latest estimate, \$535,443.00; previous estimate, \$204,131.50; difference, \$331,311.50. The natural inquiry arises, why should there be any such difference. In discussing these discrepancies, for the sake of brevity, the estimate of April 3 will be called No. 1, and estimate now for the first time submitted will be called No 2. In the first place, investigation has developed the fact that a gap of 900 feet exists in estimate No. 1, between Stations 1520 and 1529. To fill this omission, 60,000 cubic yards must be provided. Estimate No. 1 is based a less cross section than estimate No. 2; the increased section being, in my opinion, required for permanency and safety.

Estimate No. 1 makes no provision for earth filling north of Station 1581. It does not specify or provide for foundations for dam. It seems to take no account of rotten rock under embankments, and from information at hand, I do not think it makes an adequate provision for water tight banks. The concrete rib provided in base of embankment will not serve the purpose for which it was seemingly designed, inasmuch as no provision is made for preventing the percolation of water under or over it. The estimates do not show that it was intended to puddle or ram the earth used for core.

There are no details given of the Weir Dam provided for in Estimate No. 1, but it seems that the item of foundations was omitted and the section hardly equal to the service expected of it. Estimate No. 2, for this dam, shows that its cost will closely approximate one hundred thousand dollars. Should Propositions 1 or 3 be carried out, not only will the quarry track be absorbed but the existing arrangement of tracks into the Wire Mills be rendered inoperative. The embankments proposed cannot be moved farther west without invalidating the argument in favor of the chosen location on the ground of adaptability to navigation.

The prices used in Estimate No. 1, judged by our experience so far, are too low, earth filling is estimated at 25 cents. This filling should be puddled to make it reliable, and material suitable for puddle is not to be had in the near vicinity; hence the price used in Estimate No. 2, one dollar, cannot be considered extravagant.

Estimate No. 1 gives 40 cents as the price per cubic yard of rock embankment. Rock for this purpose can only be had by quarrying along the line, or else by making a long haul from the Main

Channel excavation. If taken from the Main Channel it could not come from portions on which cantilevers or cableways were being operated without a second handling, all of which considered, leads to the reasonable conclusion that 75 cents per cubic yard would be about right.

Estimate No. 1 uses 22 cents as the price of earth embankment, whereas, in view of the difficulty of obtaining earth sufficient for the work within reasonable distances of the place of deposit, 40 cents would seem to be more nearly right.

This embankment, when built, will form a reservoir of large area and considerable depth, and must not only resist the water pressure, but every spring it must withstand the crush and jam of ice brought down from the valley above. In view of these facts the cross section

used in Estimate No 2 is believed to be as small as a proper regard for the permanency of the work will justify.

Estimate No. 1 provides for the use of 402,950 cubic yards of material, and Estimate No. 2 for 618,410 cubic yards, a difference of 215,460 cubic yards, which at 40 cents equals \$86,184.00, which amount constitutes the total excess of Estimate No 2 over Estimate No. 1 on account of difference in volume of embankment. The remaining elements of difference are due to puddling core, increasing section of Weir Dam and foundations for same.

Awaiting your advice as to further treatment of the questions covered by this report, I remain,

Yours respectfully,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

COMPARATIVE ESTIMATE OF WORK TO BE DONE BETWEEN END OF SECTION 14 AND  
WEIR DAM BELOW WIRE MILLS.

*Estimate of April 3, 1893.*

Main Channel and Regulating Works as per estimate  
of March 1, 1893..... \$694,198 85

*Regulating Works to Station 1620.*

110,500 cubic yards embankment, Regulating Works to Station 1581, at 22 cents.....	\$24,310 00	
58,000 cubic yards earth filling, Station 1581 to 1620, at 25 cents.....	\$14,500 00	
116,000 cubic yards rock embankment, Station 1581 to 1620, at 40 cents.....	46,400 00	
		60,900 00
42,000 cubic yards in roadways, at 25 cents.....		10,500 00
1,437 cubic yards concrete, under embankment, at \$4.50.....		6,466 50
9,700 lineal feet of trench for same, at 15 cents.....		1,455 00
Bridge at Lockport road.....		21,600 00
Bridge at Wire Mills road.....		19,800 00
Masonry dam.....		59,100 00
		204,131 50
		<u>\$898 330 35</u>

*Revised Estimate February 23, 1894.*

*Main Channel and Regulating Works as per estimate of March 1, 1893.....		\$694,198 85
102,260 cubic yards puddled core, at \$1.00.....	\$102,260 00	
14,500 cubic yards earth excavation, at 25 cents.....	3,625 00	
16,180 cubic yards rock excavation, at \$1.00.....	16,180 00	
150,810 cubic yards filling, at 40 cents.....	60,324 00	
		\$182,389 00
118,130 cubic yards puddled core, at \$1.00.....	\$118,130 00	
13,480 cubic yards earth excavation, at 25 cents.....	3,370 00	
14,890 cubic yards rock excavation, at \$1.00.....	14 890 00	
133,370 cubic yards filling, at 40 cents.....	53,348 00	
		189,738 00
54,790 cubic yards in roadways, at 40 cents.....		21,916 00
Bridge at Lockport road.....		21,600 00
Bridge at Wire Mills road.....		19 800 00
Masonry dam.....		100,000 00
		535,443 00

\*Not revised.

\$1,229,641 85



## REPORT ON LABOR DAY COMMUNICATION

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a communication from John Beegan, George O. Woodbury, and others, representing labor organizations, with reference to the employment of men by day labor on certain portions of the Main Channel, presented and referred to that Committee at the meeting held November 29, 1893, (page 1589 of the Proceedings); and the report was read.

Mr. Cooley, seconded by Mr. Russell, moved that the report be adopted, concurred in, ordered printed, and, with enclosure, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

## THE REPORT:

"CHICAGO, Feb. 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance, to which was referred a communication from John Beegan, George O. Woodbury and others, on November 29, 1893, (page 1589 of the Proceedings) in regard to the employment of the unemployed, report as follows:

The Committee gave an audience to a large delegation of representative labor men on December 29, 1893, at which was discussed at length the entire question of employment and the question of doing work directly by day's labor. At this meeting, and in individual conferences with Trustees, nothing was suggested that seemed at all practicable in the light of the experience of the Board, and the nature of the problem in its charge, further than what the Board had already done, and had made part of its policy as occasion presented itself.

No citizen or organized body can be more alive to the necessity of carrying out the work of the District in the most expeditious manner possible with due regard to the cost, than is the Board of Trustees, and every practicable measure has been put in force to forward the work and employ the largest force possible. It is needless to say that this policy will continue.

The Board is always disposed to listen to suggestions, and if it finds the subject matter has already been fully considered,

it is pleased by the fact that the petitioners are thus able to better acquaint themselves with the policy and actual work of the Board.

A very large amount of work has been done by the Board through the direct employment of labor and on force account—all work of such immediate importance that the large extra cost was justified, and no doubt the Board will again resort to similar measures, should the emergency arise. The Special Committee on Labor submitted some preliminary information covering a portion of this work, on January 17, 1894, (page 1700 of the Proceedings)

The Board has been engaged for the last three months in straightening out all delinquent contracts and adjusting questions in issue and also in putting under way new work. A large portion of these matters are definitely disposed of, and it is anticipated that the next three months will substantially dispose of every question so far as it may be feasible to insure actual progress in work during 1894.

This Committee has delayed its report for the purpose of exhibiting fully the cost of the special work done in the nature of relief to the unemployed, but is unable to do so until the accounts are finally closed.

We recommend that the Chief Engineer be instructed to make a special report in regard to the nature and cost of work and the force employed upon the work done directly and by force account on the river diversion.

The petition is herewith returned for filing.

Respectfully submitted,

(Signed)

L. E. COOLEY.

*Chairman.*

B. A. ECKHART,

WM. BOLDENWECK,

W. H. RUSSELL,

THOMAS KELLY,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure.)

## REPORT OF JOINT COMMITTEE ON ENGINEERING AND FINANCE ON SUNDRY MATTERS REFERRED.

Mr. Cooley, Chairman, presented a report from the Committee on Engineering and Finance, with reference to and accompanied by five (5) enclosures, concerning sundry matters referred to that



Committee at the meetings as set forth in the report; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosures, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT:

"CHICAGO, Feb. 28, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I return herewith certain documents for filing, which have been referred to this Committee and the subject matter disposed of by report and action of the Board:

1. The opinion of the Attorney and General Counsel in regard to the capacity of the Main Channel through certain territory, referred October 24, 1892, (page 826 of the Proceedings) and reported on October 26, 1892, (page 841) and November 9, 1892, (page 862).

2. Report of the Chief Engineer on the location of the Main Channel at the Chicago end, referred October 24, 1892, (page 822) and reported on November 2, 1892, (page 851) and May 17, 1893, (page 1230).

3. Specifications for enlarging Illinois and Michigan Canal, referred November 16, 1892, (page 874) and reported on November 23, 1892, (page 908).

4. Report on Tail Race, referred March 1, 1893, (page 1070) and reported on April 12, 1893, (page 1152).

5. Request for authority to make test pits on Contract Sections 2, 3 and 4, referred August 2, 1893, (page 1360) and reported on December 20, 1893, (page 1636).

By direction of the

*Joint Committee on Engineering and Finance.*

(Signed)

L. E. COOLEY,  
*Chairman."*

(Five (5) enclosures.)

REPORT OF COMMITTEE ON ENGINEERING  
ON SUNDRY MATTERS REFERRED.

Mr. Cooley, Chairman, presented a report from the Committee on Engineering, with reference to and accompanied by four (4) enclosures, concerning sundry matters, referred to that Committee at the meetings set forth in the report; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosures, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT:

"CHICAGO, February 28, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Engineering returns herewith for filing certain documents which have been referred to the Committee and the subject matter disposed of by report of the Committee and action by the Board, to-wit:

1. Resolution in regard to swing bridges, referred Nov. 28, 1891, (page 274 of the Proceedings), reported on December 5, 1891, (page 279).

2. Communication by Milton George and others, propounding certain questions in regard to the works of the District, referred November 16, 1892, (page 885), reported on November 30, 1892, (page 924).

3. Report of Chief Engineer on description of Main Channel, referred April 19, 1893, (page 1172), reported on June 21, 1893, (page 1292.)

4. Report of Chief Engineer on Change in River Diversion, referred June 21, 1893, (page 1286), reported July 5, 1893, (page 1317).

By direction of the

*Committee on Engineering.*

(Signed)

L. E. COOLEY,  
*Chairman."*

(Four (4) enclosures)

REPORT ON ADDITIONAL PATROLMEN  
AND NEW POLICE STATION FOR  
CHICAGO DIVISION.

Mr. Eckhart, for the Joint Committee on Health and Public Order and Finance, presented a report, with reference to and accompanied by the report of the Marshal, with enclosures, recommending the appointment of additional patrolmen, and the erection of a new police station for the Chicago Division of the right of way, presented and referred to that Committee at the meeting held February 14, 1894 (page 1757 of the Proceedings); and further transmitting an order, directing that the recommendations of the Marshal

be carried out as set forth in the order; and the report and accompanying order were read.

Mr. Eckhart, seconded by Mr. Russell, moved that the report be adopted, ordered printed and, with enclosures, placed on file and the accompanying order adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and, with enclosures, placed on file, and the accompanying order adopted.

The following is

THE REPORT, WITH ACCOMPANYING ORDER:

“CHICAGO, February 28, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Joint Committee on Health and Public Order and Finance, to whom was referred the report of the Marshal, with enclosures, making certain recommendations with reference to the erection and equipment of a Police Station on the Chicago Division of the right of way of the Main Channel, and the employment of additional patrolmen therefor, at the meeting held February 14, 1894 (page 1757 of the Proceedings), respectfully report that they have considered the same, and transmit herewith to your Honorable Body an order, covering the recommendations made in the report of the Marshal, the adoption of which order is respectfully recommended.

The report of the Marshal, with enclosure, is returned for filing.

Respectfully submitted,

(Signed)

A. P. GILMORE,

*Chairman.*

B. A. ECKHART,

W. H. RUSSELL,

THOMAS KELLY,

*Joint Committee of Health and Public Order and Finance.”*

(Accompanied by order and four (4) enclosures.)

The following is

THE ACCOMPANYING ORDER:

“*Ordered*, That the Committee on Finance be and it is hereby authorized and empowered to lease, for not to exceed five (5) years, a lot for a station for the Police Department, between the Atchison, Topeka and Santa Fe Railway and the tow path of the Illinois and Michigan Canal, and west of Hyman avenue; and be it further

*Ordered*, That the Police Board be and it is hereby authorized and empowered to employ ten (10) additional patrolmen, as recommended by the Marshal in his report, presented February 14, 1894, (page 1757 of the Proceedings); and be it further

*Ordered*, That the Police Board be and it is hereby authorized and empowered to build one police station at Hyman avenue and the Canal, the same as those stations heretofore built, at a cost not to exceed twelve hundred (\$1,200) dollars; and be it further

*Ordered*, That the President and Clerk be and they are hereby authorized and instructed to execute all necessary contracts on behalf of this District, for the construction of said police station, and the lease for lot aforesaid; all of said papers to be drawn up by the Attorney.”

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*

February 28.]

—1801—

[1894.



# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

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 MARCH 7, 1894.
 

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#### OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and twelfth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, March 7, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Eckhart, Kelly, Prendergast, Russell and Wenter—six (6), and subsequently Mr. Cooley, making a total of seven (7) members, were present.

#### MINUTES.

The minutes of the regular meeting

held February 28, 1894, were approved as printed on motion of Mr. Kelly, seconded by Mr. Eckhart.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### Construction Account—

McArthur Bros. (Sec. 2, March 1, '94).....	\$12,934 42
Gilman & Co. (Sec. 3, March 1, '94).....	2,557 80
McArthur Bros. (Sec. 4, March 1, '94).....	5,056 89
The Qualey Construc- tion Co. (Sec. 5, March 1, '94).....	1,417 50
Agnew & Co. (Sec. 6, March 1, '94).....	1,015 88
Agnew & Co. (Sec. 7, March 1, '94).....	2,145 06
Mason, Hoge, King &	

Co. (Sec. 8, March 1, '94).....	\$ 3,458 00
Halvorson, Richards & Co. (Sec. 9, March 1, '94).....	5,719 43
E. D. Smith & Co. (Sec. 10, March 1, '94)....	17,860 00
Mason, Hoge & Co. (Sec. 11, March 1, '94).....	7,016 47
Mason, Hoge & Co., (Sec. 12, March 1, '94).....	4,784 72
Mason, Hoge & Co., (Sec. 13, March 1, '94).....	8,110 38
Smith & Eastman (Sec. 14, March 1, '94).....	4,429 55
Western Dredging & Improvement Co. (Sec. C, March 1, '94).....	4,974 89
E. D. Smith & Co. (Sec. D, March 1, '94).....	7,993 77
Ricker, Lee & Co. (Sec. F, March 1, '94).....	5,189 08
Alfred Harlev, (Sec. 1, River Diversion, final).....	4,112 83
Atchison, Topeka and Santa Fe R. R. Co., (Sec. 10, extra work changing tracks, Feb. 23, '94).....	10 80
Western Stone Co. (Sec. 10, levee at Quarry No. 5, Jan. 20, '94)....	1,400 58
Western Stone Co. (Sec. 10, special work, tracks at Quarry No. 5, Jan. 6, '94).....	3,101 94
	<hr/> \$102,789 99

## ENGINEERING DEPARTMENT.

Jacobs, Coles & Co. (stationery).....	\$ 44 20
Pettibone, Wells & Co., (stationery).....	21 90
A. C. McClurg & Co. (stationery).....	37 46
Stromberg, Allen & Co. (stationery).....	78 35
Office Specialty Co., (filing cases, etc.)....	9 00
Morrisson, Plummer & Co., (oil, etc.).....	1 78
F. Mayer & Co. (blue prints).....	76 77
E. Dietzgen Co. (drafting material).....	147 64
Keuffel & Esser Co. (drafting material)....	30 00
Seelig & Kandler, (repairing instruments).....	12 90
Hibbard, Spencer, Bartlett & Co. (hardware)....	8 30
H. Schultz & Co. (paper boxes).....	4 00
R. W. Goodwillie Box Co. (pine and oak stakes).....	135 00
Chicago Towel Supply Co. (towelings).....	5 40
Waukesha Hygeia Mineral Springs Co. (water).....	7 50
Trevor Spring Water Co., (ice).....	9 00

Ryan & Sullivan (coal)	\$ 13 65
Jno. A. Roebing Sons Co. (galvanized cord)	8 40
Chicago Photo Engraving Co. (engravings for history).....	88 00
Henry Gebhardt, (vault fittings).....	11 13
Geo. Brainard, (gauge reading).....	10 00
E. Hastings, (gauge reading).....	10 00
Wm. Kirkham, (gauge reading).....	10 00
Patrick McGinnis, (gauge reading).....	10 00
Mary Rusk, (gauge reading).....	10 90
A. M. Munson, (rent, Mt. Forest).....	20 00
H. S. Norton, (rent, Lemont).....	18 00
O. W. Moon, (rent, Lockport).....	20 00
Elizabeth Boyer (free claim).....	75 00
D. C. Dunlap, (traveling).....	30 96
E. R. Shnable, (traveling).....	9 13
Chas. L. Harrison, (traveling).....	6 90
Alex. E. Kastl, (traveling).....	18 02
F. G. Ewald, (traveling).....	10 88
F. G. Ewald, (emergency).....	12 35
F. G. Ewald, (emergency).....	8 00
	<hr/> \$ 1,029 62

## CLERICAL DEPARTMENT.

Pettibone, Wells & Co., (stationery).....	5 50
Wyckoff, Seamans & Benedict, (paper)....	1 50
Warner's Towel Supply, (towelings).....	1 50
Trevor Spring Water Co. (ice).....	3 00
	<hr/> \$ 11 50

## LAW DEPARTMENT.

Jacobs, Coles & Co., (stationery).....	1 25
H. H. Hoffman & Co., (stationery).....	10 00
T. R. Shearer, (stenographer).....	28 75
	<hr/> \$ 40 00

## GENERAL ACCOUNT.

Orrin N. Carter, (Patrick Butterfield claim, damages for personal injuries).....	75 00
John F. Higgins, (printing proceedings, Feb., '94).....	185 83
	<hr/> \$ 260 83
Grand total.....	<hr/> \$104,131 94

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Pendergast, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried and the vouchers, as read and shown above, approved and ordered paid.

#### REQUISITIONS.

The Clerk presented the following requisition:

No. 390, Engineering Department  
(printing)..... \$6 00

Mr. Boldenweck, seconded by Mr. Kelly moved that Requisition No. 390, for the Engineering Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Pendergast, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 390, for the Engineering Department, as read and shown above, allowed.

#### WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending March 3, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“CHICAGO, March 7, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending March 3, 1894, as the same have been reported to me:

Engineering Department.....	115
Clerical Department.....	4
Treasury Department.....	1
Law Department....	8
Police Department.....	37

Total employes..... 165

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

#### NEGOTIATIONS FOR CROSSING NORTHERN PACIFIC RAILROAD.

The Clerk presented a report from the Chief Engineer, with reference to the opening of negotiations with the Northern Pacific Railroad, concerning the re-adjustment of grades and bridge openings where that road crosses the Desplaines River; and the report was read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

#### THE REPORT:

“CHICAGO, March 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—For several months past I have endeavored to open up negotiations with the Northern Pacific authorities for an adjustment of matters involved in the re-adjustment of grades and bridge openings of the Chicago & Calumet Terminal Railroad where it crosses the Desplaines River, which re-adjustment has become necessary by reason of the works constructed by this District for controlling the flood waters of the said River.

On Saturday last I met with Mr. Ainsley, the general manager of the Chicago & Northern Pacific Railroad, and stated to him what seems necessary to be done in this connection. He said that they had now reached a point where they could take up negotiations with the District and reach a speedy conclusion. This should be done without delay, to the end that the work may be completed within the working season now beginning. I have had plans and estimates prepared covering this work and I find the approximate cost to be about \$42,000. This covers the cost of raising the existing bridge spans and adding two spans of 100 feet each, and raising the approaches to the new grade. Bridges to be double track, road bed single track. Should the road bed be made for double track this estimate will be increased probably \$10,000. Mr. Ainsley asks that you submit a proposition covering all of the construction involved and the conditions under which it is to be executed. He prefers that we should do the work.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer.”



## MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of February, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT :

"Balance on hand at date of last report.....	\$3,121,122.92
Received from South Town Collector, tax account.....	\$20,000.00
Received from Town of Jefferson Collector, tax account.....	435.00
Received from National Bank of Illinois, interest for February.....	1,210.20
Received from American Trust and Savings Bank, interest for February.....	40.26
Received from Metropolitan National Bank, interest for February.....	1,212.26
Received from Ft. Dearborn National Bank, interest for February.....	1,206.90
Received from Globe National Bank, interest for February.....	803.70
Received from Chicago National Bank, interest for February.....	1,207.66
	<u>\$ 26,115.98</u>
Total cash received for month.....	\$3,147,238.90
Total cash disbursed during month as per annexed schedules, viz:	
Clerical Department....	\$971.42
Treasury Department..	185.66
Engineering Departm't.	13,265.33
Engineering—Construction—Department....	252,878.48
Law Department.,.....	5,687.50
Law Department—Land Account.....	8,511.00
General Account.....	3,477.55
Police Department.....	3,264.24
	<u>\$288,241.23</u>
Balance this date, in banks as per schedule endorsed hereon ....	<u>\$2,858,997.67</u>

(Signed)

MELVILLE E. STONE,

Treasurer.

Chicago, March 5, 1894."

## SCHEDULE :

Fort Dearborn National Bank.....	\$ 606,122.08
National Bank of Illinois.....	606,962.61
Chicago National Bank.....	605,638.08
Metropolitan National Bank.....	608,859.95
American Trust and Savings Bank.	21,003.79
Globe National Bank.....	410,411.16
Total.....	<u>\$2,858,997.67</u>

## MONTHLY REPORT FROM SANITARY INSPECTOR.

The Clerk presented a report from the Sanitary Inspector for the month of February, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT.

"CHICAGO, March 7, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago :*

GENTLEMEN—Since submitting my last report, two more cases of smallpox have been removed from the camps of the Drainage Channel; this makes an aggregate of five cases that have occurred along the line up to the present time. This is a very small number, when it is considered that the laborers on the channel are of the class that patronize the cheap lodging houses of the larger cities that have proved such prolific sources of contagion. No cases have originated on our works, but all, without an exception, have occurred in men who were employed but a few days previous to taking sick, and had gone from Chicago directly to the camps, so that instead of being a menace to the city, it has been the exact reverse with all of our boarding-houses along the line of the channel, as all of the cases occurring in them could be traced directly to Chicago.

The rule continues to be strictly enforced of requiring all applicants for work to submit to vaccination. The general health of the employes has been good; the sanitary regulations are being enforced, although lurid accounts to the contrary appear in the newspapers at intervals of considerable frequency.

The Drainage Channel seems to be the favorite hunting grounds for the expert sanitarians of the press. It is true that they could find bigger game right here in Chicago if they would take the trouble to paddle their canoes up the stock yards branch of the river, or skirmish in our alleys, where they could see in one-half hour more material for the creation

of those direful epidemics, which they are so fond of predicting will occur, than they could discover during a lifetime spent in our various camps.

Most respectfully submitted,

(Signed) WILLIAM MARTIN, M. D.,  
*Sanitary Inspector."*

REPORT ON BUILDING OF WESTERN STONE  
CO. LEVEE ON SECTION 10.

Mr. Kelly, Chairman, presented a report from the Committee on Judiciary, with reference to and accompanied by the joint report of the Chief Engineer and Attorney, presented and referred to that Committee at the meeting held February 21, 1894 (page 1788 of the Proceedings), concerning the building by the Western Stone Co. of an embankment on the north side of the river diversion on Section 10, said joint report recommending the payment of the bill of said Company for the construction of said embankment; and the report was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and with accompanying joint report, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and with accompanying joint report, placed on file, and the recommendations made in the report concurred in.

The following is

THE REPORT:

"CHICAGO, March 7, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Judiciary, to which was referred the joint report of the Chief Engineer and Attorney at the meeting held February 21, 1894 (page 1788 of the Proceedings,) in regard to the claim of the Western Stone Company on account of the construction of a levee to protect their quarry, known as No. 5, near the line of Cook and Will Counties, reports as follows:

The circumstances are fully set forth in the joint report of the Chief Engineer and Attorney. It appears that the claim is a proper one and should be allowed. The

Committee therefore recommends that the amount of the bill (\$1,400.58) be paid, on the regular voucher of the Engineering Department.

The joint report of the Chief Engineer and Attorney is returned for filing.

Respectfully submitted,

(Signed) THOMAS KELLY,  
*Chairman.*

WM. BOLDENWECK,

*Committee on Judiciary."*

(One (1) enclosure.)

APPROVAL OF LEASE FOR ENGINEER'S  
OFFICE ON CHICAGO DIVISION.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, transmitting lease, in duplicate, with John McCaffery, for the renting of an Engineer's office at Brighton Park, on the Chicago Division of the Main Channel, as set forth in the report and as authorized at the meeting held February 10, 1894, (page 1733 of the Proceedings); and the report was read.

Mr. Eckhart, seconded by Mr. Russell, moved that the report be adopted, ordered printed, and with enclosures placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said lease, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and with enclosures placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said lease on behalf of the District, as provided in the report.

The following is

THE REPORT:

"CHICAGO, March 7, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—On February 10, 1894 (page 1733 of the Proceedings), the Chief Engineer was authorized to secure suitable quarters for an Engineer's office at Brighton Park, on the Chicago Division



of the Main Channel, at a rental of \$25.00 per month. Under this authority the Chief Engineer has rented quarters at No. 3541 Daly street, Chicago, from John McCaffery, at a rental of \$25.00 per month.

Your Committee herewith transmits a lease in duplicate with said John McCaffery for the said premises, and recommend that the same be approved and the President and Clerk authorized and directed to execute the same on behalf of the District.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

W. H. RUSSELL,

THOMAS KELLY,

*Committee on Finance."*

(Accompanied by lease in duplicate.)

#### PURCHASE OF "McCORMICK" LANDS.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from Nettie F. McCormick and Cyrus H. McCormick, Jr., and the Trustees of Mary V. and Cyrus H. McCormick, deceased, of certain right of way lands in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay to said Nettie F. McCormick and Cyrus H. McCormick, Jr., and the Trustees of Mary V. and Cyrus H. McCormick, deceased, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and recommendations made therein concurred in, and the Clerk authorized and directed to pay said Nettie F. McCormick and Cyrus H. McCormick, Jr., and the Trustees of Mary V. and Cyrus H. McCormick, deceased, on

the voucher of the Attorney, for the said right of way lands, as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, March 7, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with Nettie F. McCormick; Cyrus H. McCormick, Jr.; Nettie F. McCormick, Eldridge M. Fowler and Cyrus H. McCormick, Jr., Trustees of Mary V. McCormick; and Nettie F. McCormick and Cyrus H. McCormick, Jr., as Trustees under the will of Cyrus H. McCormick, deceased, of the respective shares of Anita McCormick Blaine, Harold Fowler McCormick and Stanley Robert McCormick, for the purchase from them for the corporate purposes of this District of the land hereinafter described, for the sum of forty-eight thousand four hundred and five (\$48,405) dollars.

Your Committee recommends that the Clerk of this District be directed to pay on the voucher of the Attorney to said Nettie F. McCormick; Cyrus H. McCormick, Jr.; Nettie F. McCormick, Eldridge M. Fowler and Cyrus H. McCormick, Jr., trustees of Mary V. McCormick; and Nettie F. McCormick and Cyrus H. McCormick, Jr., as trustees under the will of Cyrus H. McCormick, deceased, of Anita McCormick Blaine, Harold Fowler McCormick and Stanley Robert McCormick, represented in Chicago by H. W. Butler, attorney, the sum of forty-eight thousand four hundred and five (\$48,405) dollars in full payment for the following described land, to-wit:

That part of the east half of the southwest quarter of the southwest quarter of Section thirty (30), Township thirty-nine (39) North, Range fourteen (14), east of the Third Principal Meridian, lying south of a line drawn from a point on the west line of said Section thirty (30), five hundred and twelve (512) feet north of the southwest corner of said Section thirty (30) to a point on the east line of the southwest quarter of the southwest quarter of said Section thirty (30), one thousand and fifty-five and five-tenths (1,055.5) feet north of the south line of said Section, and lying north of a line drawn from a point on the south line of said Section two hundred and eighty-six (283) feet west of the southwest corner of said southwest quarter of the



southwest quarter of said Section to a point on the east line of said southwest quarter of the southwest quarter, seventy-two (72) feet north of the south line of said Section; said lands lying and being situate in the County of Cook, State of Illinois.

Respectfully submitted,

(Signed)

B. A. ECKHART,

*Chairman.*

W. H. RUSSELL,

THOMAS KELLY,

WM. BOLDENWECK,

L. E. COOLEY,

*Joint Committee on Finance and Engineering."*

#### EXTENSION OF TIME ON REPORT ON TAIL RACE.

Mr. Cooley, Chairman, made a verbal report from the Joint Committee on Engineering and Finance, with reference to the comparative estimates on the cost of the extension of the Main Channel and the tail race between Lockport and Joliet, presented and referred to that Committee at the meeting held February 28, 1894 (Page 1795 of the Proceedings), stating that the Committee was unable to report at the present meeting as directed, and asking for further time.

By unanimous consent further time was granted.

#### CLAIM FOR DAMAGES TO COLUMBIA PARK BUILDINGS.

The Clerk presented a communication from George W. Plummer, representing the Columbia Park Company, making claim for damages said to have been done to the buildings of the Park by blasting

on the river diversion; and the communication was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the communication be ordered printed and referred to the Joint Committee on Judiciary and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

#### THE COMMUNICATION:

"CHICAGO, March 1, 1894.

*The Board of Commissioners, Sanitary District of Chicago:*

GENTLEMEN—While making the river diversion in front of Columbia Park the buildings of the park were greatly damaged from stumps and stones being thrown on them by blasting, and are in need of repairs at once. We desire to call your attention to the fact, for the purpose of ascertaining whether it is your intention to make the repairs yourself or whether you desire the Columbia Park Company to make them at your expense and send the bills for same to you.

Please advise us what you desire to do in the matter, as it is necessary that the buildings be repaired at once.

(Signed) COLUMBIA PARK COMPANY,

*By Geo. W. Plummer, its Attorney."*

#### ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*

March 7.]

—1809—

[1894.

PROCEEDINGS

-OF THE-

BOARD OF TRUSTEES,

-OF THE-

SANITARY DISTRICT OF CHICAGO.

MARCH 14 AND 17, 1894.

OFFICIAL RECORD.

(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)

REGULAR MEETING.

The two hundred and thirteenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, March 14, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6) members, were present.

MINUTES.

The minutes of the regular meeting held March 7, 1894, were approved as printed on motion of Mr. Eckhart, seconded by Mr. Russell.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

Construction Account—

McArthur Bros. Co. (Sec. 2, extra work, river diversion, Dec. 26, 1893, final).....	\$2,845 42
McArthur Bros. Co. (Sec. 4, extra work, river diversion, Dec. 26, 1893, final).....	5,965 41
McArthur Bros. Co. (Sec. 5, extra work, river diversion, Dec. 26, 1893, final).....	276 44
Heldmaier & Neu, (Sec. A, extra work, March 12, 1894).....	6,500 16
Streeter & Kenefick, (Sec. E, extra work, over haul, Jan. 9, 1894).....	2,579 45
	<hr/> \$18,166 88



## LAW DEPARTMENT.

Orrin N. Carter, (expense)..... \$24 73

## GENERAL ACCOUNT.

<i>The Chicago Herald</i> Co. (advertising Secs. 1, N and O).....	\$25 80
<i>The Chicago Evening</i> <i>Post</i> Co. (advertising Secs. 1, N and O)....	18 00
<i>The Tribune</i> Co. (ad- vertising Secs. 1, N and O).....	26 70
<i>The Chicago Record</i> , (advertising Secs. 1, N and O).....	18 00
<i>The Chicago Daily</i> <i>News</i> Co. (advertising Secs. 1, N and O).....	27 00
<i>The Inter Ocean</i> , (ad- vertising Secs. 1, N and O).....	22 50
<i>The Mail</i> , (advertising Secs. 1, N and O).....	18 00
<i>The Chicago Dispatch</i> , (advertising Secs. 1, N and O).....	18 00
John R. Wilson, Pub. <i>Chicago Evening</i> <i>Journal</i> , (advertising Secs. 1, N and O)....	13 50
<i>Illinois Staats Zeit-</i> <i>ung</i> Co. (advertising Secs. 1, N and O)....	12 50
<i>The Abendpost</i> Co. (advertising Secs. 1, N and O).....	10 50
<i>Chicago Arbeiter Zeit-</i> <i>ung</i> Co. (advertising Secs. 1, N and O)....	10 00
<i>The Polish Pub. Co.</i> , <i>Dziennik Chicago-</i> <i>ski</i> , (advertising Secs. 1, N and O).....	4 50
German American Pub. Co., <i>Freie</i> <i>Presse</i> , (advertising Secs. 1, N and O)....	12 50
<i>Norden</i> Pub. Co. (ad- vertising Secs. 1, N and O).....	13 50
Chicago Deposit Vault Co., (janitor service, February, 1894).....	80 00
	<hr/> \$331 00
Grand total.....	<hr/> \$18,522 61 <hr/>

Mr. Kelly, seconded by Mr. Russell, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart (*except on Construction voucher of Heldmaier & Neu*), Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried and the vouch-

ers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 391, Engineering Department, (sundry supplies).....	\$232 90
No. 392, Engineering Department, (sundry supplies).....	420 85
No. 474, Law Department, (post- age stamps).....	10 00
Total.....	<hr/> \$663 75 <hr/>

Mr. Kelly, seconded by Mr. Russell, moved that Requisitions No. 391 and 392, for the Engineering Department, as read and shown above, be referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the requisitions were so referred.

Mr. Kelly, seconded by Mr. Russell, moved that Requisition No. 474, for the Law Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 474, for the Law Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending March 10, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, March 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending March 10, 1894, as the same have been reported to me:

Engineering Department.....	114
Clerical Department.....	4
Treasury Department.....	1

Law Department.....	8
Police Department.....	37
<hr/>	
Total employes.....	164
<hr/>	

Respectfully submitted,  
(Signed) THOS. F. JUDGE,  
Clerk."

MONTHLY REPORT FROM CLERICAL DE-  
PARTMENT.

The Clerk presented a report from the Clerical Department for the month of February, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, March 14, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I have the honor to here- report that the total amount expended on account of and charged to the Clerical Department during the month of February, 1894, was \$950.19, divided as follows:

Salaries.....	\$891.66
Stationery.....	5.18
General expenses.....	53.35
<hr/>	
Total.....	\$950.19
<hr/>	

There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$950.

The total amount expended and charged to the General Account, during the month of February, 1894, was \$2,938.81, divided as follows:

Salaries.....	\$2,533.33
Printing and Stationery.....	215.01
Janitor Service.....	80.00
General expenses.....	110.47
<hr/>	
Total.....	\$2,938.81
<hr/>	

There are no outstanding liabilities against the General Account, and the expenses for the present month will be under \$3,500.

During the month of February, 1894, there were warrants authorized and drawn against the various accounts as follows:

Engineering Department.....	\$ 12,813.96
Clerical Department.....	950.19
Law Department.....	5,610.88

Treasury Department.....	\$ 166.87
General Account.....	2,938.81
Engineering Department (Con- struction Account).....	244,451.35
Law Department (Land Acc't)..	30,011.00
Police Department.....	3,257.49

Total.....\$300,200.35

Respectfully submitted,  
(Signed) THOS. F. JUDGE,  
Clerk."

MONTHLY REPORT FROM ENGINEERING  
DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of February, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, March 14, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the reports of Divisions 2 and 3, showing the detailed operations of the Engineer- ing Department for the month of Febru- ary; also a classified statement of expenses in the usual form.

Expenses for the month of February were as follows:

Contractors estimates.....	\$237,958.17
Pay rolls.....	11,902.83
Material, etc.....	6,374.87

Total for February.....\$256,235.87

I estimate the expenses for March will be \$325,000.00, including contractors' estimates.

Yours truly,  
(Signed) ISHAM RANDOLPH,  
Chief Engineer."

(Enclosing classified statement.)

"CHICAGO, March 13, 1894.

Mr. Isham Randolph, Chief Engineer:

DEAR SIR—The work of Division 2 for the month of February, 1894, was as fol- lows:

Preparations were made to take dis

charge measurements in the Desplaines River, above the spillway and below the Willow Springs road.

Finished the survey for additional topography between Bridgeport and Corwith, along the right of way of the Sanitary District.

Some additional surveys were made at Joliet.

Plans and specifications for the reconstruction of the Chicago and Calumet Terminal Railroad bridge over the Desplaines river, were completed.

Some work was done on the proposed reconstruction of the Santa Fe bridge, across the Desplaines river at Summit.

Considerable time was given to the consideration of various matters connected with the extension of the Main Channel between Corwith and Robey street.

Additional work was done on the plans for the extension of the Main Channel below Section 14.

The Desplaines River hydrographs were brought up to date.

The maintenance and records of water gauges were continued.

The work on the reduction of the notes pertaining to the Illinois River floods was continued.

The expense for March will approximate to that of February.

Very respectfully,

(Signed)

THOS. T. JOHNSTON,

*First Assistant Chief Engineer."*

—  
"CHICAGO, March 13, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of February, 1894.

Made the plans and estimates of the retaining walls, and the map profile and cross-section of the Main Channel in Section 1, and tracings of the same.

Made a map of the river diversion and levees as constructed at Willow Springs; two maps of the regulating works, near Lockport, as recommended by the committee report of April 12, 1893; copies of the maps furnished the County Clerk's office of the lands of the Sanitary District in Cook, Will and DuPage Counties; a profile of the river diversion and levees from Summit to Joliet; a large scale pro-

file of the Chicago Divide and Illinois River; a plan showing cross-sections of various canals; a plan of a warning signal, and a colored print of the topography between Chicago and Joliet.

Finished the sewerage map of Chicago and vicinity, and a map and tracing of the Main Channel, from Corwith to Bridgeport.

For the Law Department made a map of the right of way in Section 31, Township 39 North, Range 14 East; three maps of tract 213 and two maps and a tracing of the Canalport Subdivision in Section 30, Township 39 North, Range 14 East; a map from Summit to Lemont; a copy of the court map between Chicago and Joliet, and a map and cross-sections of the right of way in Section 23, Township 38 North, Range 12 East.

Prepared a revised estimate of the cost of the works from Chicago to Joliet; maps and estimates for the history of the District, and reduced stadia notes between Corwith and Bridgeport.

Work was continued on the plans and estimates of a regulating wier, on the progress charts and profiles, the record copies of construction notes, the platting of the Sanitary District map; parts 1 and 3 of the main topographical map; numbers 17 to 20 of the 100 feet scale contour maps, and on the cross-sections of the valley between the end of Section 14 and Joliet for the relief map.

Commenced work on a plat, 50 feet scale, of the territory about the Wire Mills at Lockport.

Some copies were made from the county records for use in compiling the Sanitary District map.

The expenses for March will be the same as for the past month.

Yours respectfully,

(Signed)

EDGAR WILLIAMS,

*Second Assistant Chief Engineer."*

#### PROPOSED AGREEMENT WITH THE SANTA FE FOR BRIDGES FOUR AND FIVE.

The Clerk presented a report from the Chief Engineer transmitting a form of agreement, accompanied by plat, with the Atchison, Topeka and Santa Fe Railroad, with reference to the changing of bridges four and five of said railroad across the Desplaines River, below the Spillway; and the report was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report be ordered printed



and with accompanying agreement and plat, be referred to the Joint Committee on Engineering and Finance, with instructions to report back at the next regular meeting.

The motion prevailed unanimously, and the report was ordered printed and with accompanying agreement and plat, so referred.

The following is

THE REPORT:

"CHICAGO, March 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith a form of agreement under which it is proposed that the bridge of the Atchison, Topeka and Santa Fe Railroad across the Desplaines River below the Spillway in the Town of Lyons shall be raised to a safe height and the waterway increased by lengthening the pile trestle approaches to said bridge, so as to insure the safety of the said railroad company's tracks during extreme floods in the said river. This work has become necessary by reason of the levees constructed by this District for controlling the flood waters of the Desplaines and the outlay therefor appears to be a proper charge against the District. The maximum cost of the work is fixed in this agreement at \$6,000, which I believe to be fair and reasonable.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

*Chief Engineer."*

(Enclosing form of agreement and plat.)

CONDITION OF WORK OF THE QUALEY  
CONSTRUCTION COMPANY ON SEC-  
TION 5.

The Clerk presented a report from the Chief Engineer with reference to and making certain recommendations concerning the condition of the work of the Qualey Construction Company on Section 5 of the Main Channel; and the report was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance, with instructions to report back at the next regular meeting.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

THE REPORT:

"CHICAGO, March 13, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The situation which now obtains on Section 5, Qualey Construction Co., Contractors, is a most serious one. Owing to the unstable character of the earth overlying the rock, grave fears have been entertained for many months that land slides would occur, and from time to time on a small scale they have taken place.

On Thursday, March 1st, about 8 P. M., a land slide occurred on the north side of the cut between Stations 985 and 988. The entire berm and a portion of the spoil bank slid into the channel, blocking the through cut already made with a mass of many thousand cubic yards. One of the steam shovels engaged upon the work was caught and partially buried in the mass. In view of the now existing condition, I believe that an agreement should be arrived at between the contractors and this District under which it will be practicable to work this section successfully. Under the terms of the now existing contract, material taken from the channel may be deposited along the sides, leaving a berm of only 50 feet. The berm, however, which has been left heretofore is actually about 70 feet. It is clearly unsafe to deposit any large volume of material within a width of 150 feet of the channel, and a greater width is in the direction of wise precaution. I would recommend that all material excavated hereafter be deposited upon the area included between the River Diversion levees and a line drawn parallel with the edge of the Main Channel and 200 feet therefrom. This to be enforced until such time as the retaining walls are built throughout the section and properly filled behind with broken stone. This disposition will involve methods of working different from those now in use upon the section.

I have ordered this work staked out so as to leave side slopes of one foot vertical to one foot horizontal from the rock surface. On the north side of the center line, a through cut has been made for a distance of about 3000 feet, without a slope. For sloping this portion of the work, the

contractors ask extra compensation, upon the ground that the work must now be done by hand, at a greater cost to them than would have resulted had they been permitted to make the slopes while making the first cut through with machinery.

All work west of the land slide has been suspended upon this section, under my order, because the excavated material would have to be placed within the line of probable land slide, as the contractors have not the proper appliances on that portion of the work for moving it to a safe distance.

The progress of the work on this section will be greatly facilitated by a speedy adjustment of the methods under which it is to be prosecuted, and fixing the compensation which the contractors are to receive for doing the work under the new conditions.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*"

#### MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of February, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, March 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago :*

GENTLEMEN—I submit herewith the monthly report for February, 1894. The total amount paid out by this Department during said month is as follows:

#### Salaries.

Attorneys.....	\$1,550 00	
Office force.....	320 00	
		\$1,870 00

#### General Expenses.

Right of way.....	\$ 414 83	
Court costs.....	1,732 27	
Legal services.....	1,525 00	
Printing and stationery	47 73	
Sundries.....	21 05	
		\$3,740 88

#### Land Account.

Right of way.....	\$4,775 00	
Total.....	\$10,385 88	

By direction of your Honorable Body agreements were prepared by this Department granting to the contractors for Sections six (6) and seven (7) a period of thirty days within which to bring the work upon Section seven (7) up to the required rate of progress and within which to make such showing upon Section six (6) as should satisfy the Engineer that they would at the end of sixty days make the required rates of progress upon said Section six (6), and providing for a forfeiture thereof if such rates of progress were not secured.

An agreement with the contractor for Section C was also drawn securing certain needed changes in the manner of prosecuting the work on that section, and also providing for the preservation for the future use of the District of a large quantity of sand suitable for the making of cement mortar, deposits of which sand are found in the line of the Main Channel.

An oversight has been given in connection with the Engineering Department to the preparation and printing of the specifications for the reletting of Contract Section one (1) and for the letting of the new Sections N and O.

The briefs and arguments were completed in the case of the District vs. Burke et al., and oral arguments in same were made before the Supreme Court at Ottawa.

Much time has been given in the Department to the consideration of the opinions of title to that portion of Canalport lying within the right of way of the District. The purchase of thirty-seven (37) lots in Manchester was also concluded during the month.

During the present month the Department will be occupied with the continuation of land purchases, with re-trial of the case of the District vs. Cook et al., and with the questions arising out of the recent overflow of the Desplaines.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
*Attorney."*

#### REPORT ON MEASUREMENT OF VARIOUS FLOODS.

Mr. Cooley, Chairman, presented a report from the Committee on Engineering with reference to and accompanied by a report from the Chief Engineer, with enclosure and tables, being an investiga-



tion and comparison of floods in the basins of the Chicago, Desplaines and Illinois Rivers, under an order of June 1st, 1892, presented and referred to that Committee at the meeting held March 1st, 1893, (page 1063 of the Proceedings); and the report was read.

Mr. Cooley, seconded by Mr. Russell, moved that the report be adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the report adopted, ordered printed, and, with enclosures, placed on file, and recommendations made in the report concurred in.

The following is

#### THE REPORT:

“CHICAGO, March 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the report on floods, submitted under order of June 1, 1892, (page 535 of the Proceedings) and referred to this Committee on March 1, (page 1067) and also on April 5, (page 1137) the same has been considered, and the following report is submitted:

We find that the report covers the floods of May and June, 1892, only, whereas the order contemplated a discussion of all matters that may be “germane to the flood question.” Among such matters are specified a comparison with the flood of 1887, the records of any other characteristic floods, and the volume of flood waters going to Lake Michigan and that would be tributary to the Main Channel under certain conditions. The information submitted is virtually a progress report.

On February 15, 1893, (page 1054) the Board passed an order for the measurement of the floods of 1893 in the basins of the Desplaines and North Branch, in regard to which no report has been received. The Board also ordered an overflow map of the Desplaines Valley, on February 23, 1893, (page 1062) and this order was complied with in the map and profile submitted on March 29, (page 1128) and on April 19, (page 1173.) In addition, certain investi-

gations have been made in the Illinois Valley upon the recommendations of the Engineering Department on June 29, 1892, (page 605) under authority of July 27, 1892, (page 653) in regard to which the Committee on Judiciary reports on April 12, (page 1149) and the Chief Engineer on April 19, (page 1172.) These special orders are all virtually covered in the order of June 1, 1892, the report upon which is before the Committee, and it seems proper to consider them in connection therewith.

The operations of the District have sufficiently established the utility of all possible information in regard to the flood habits of the streams with which the District is concerned. The Committee believes that all such matters should be collated, and that when the work is as complete as practicable, that the information should be carefully edited and published for reference. At the same time, any deficiencies should be met by gaugings as opportunity offers, and systematic gauge readings should be maintained at such points as may prove useful.

While complying as far as practicable with the several orders referred to, it is submitted that the Chief Engineer should, at an early day, submit a comprehensive project for the general prosecution of all such work, for the approval of the Board, in order that work of this character may be more clearly defined and explicitly authorized, and the Committee so recommend.

The documents referred to are herewith returned.

Respectfully submitted,

(Signed) L. E. COOLEY,

*Chairman.*

THOMAS KELLY,

W. H. RUSSELL,

JOHN J. ALTPETER,

*Committee on Engineering.”*

(One (1) enclosure, report.)

ADJOURNMENT TO SPECIAL TIME.

Mr. Eckhart, seconded by Mr. Kelly, moved that when the Board adjourn, it do adjourn to meet Saturday, March 17, 1894, at 1 o'clock P. M.

The motion prevailed unanimously, and it was so ordered.



## ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Russell, the Board then adjourned to meet Saturday March 17, 1894, at 1 o'clock P. M., pursuant to motion.

THOS. F. JUDGE,  
Clerk.

## ADJOURNED MEETING.

The adjourned session of the two hundred and thirteenth regular meeting of March 14, 1894, of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Saturday, March 17, 1894, at 1 o'clock P. M., pursuant to motion.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—a total of six (6) members were present.

## RECESS.

At one (1) o'clock P. M., on motion of Mr. Eckhart, seconded by Mr. Russell, the Board took a recess of ten (10) minutes.

On reassembling at close of the recess at 1:10 P. M. the same day, on roll-call Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6), and subsequently Mr. Altpeter, making a total of seven (7) members, were present.

## RESULTS OF FLOOD OF MARCH 5, 1894.

The Clerk presented a report from the Chief Engineer with reference to the results of the flood of March 5, 1894.

The report was read and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

"CHICAGO, March 13, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Our river diversion work has been put to the high water test, and I submit a report of the results: On Monday, the 5th inst., water began to flow over the spillway below Riverside. The discharge continued for 61 hours, reaching the maximum volume on Tuesday the 6th inst. Owing to the insufficient height of protec-

tion levees on Section E, the flood swept over that section and a serious crevasse occurred in the tow path of the Illinois and Michigan Canal about 1:30 P. M. of Tuesday, the 6th inst. The work of repairing this breach was begun, with as little delay as possible, jointly by the Illinois and Michigan Canal authorities and forces employed by this District, and the gap was closed by a dam of loose stone on Friday night, the 9th inst. The disaster on Section E was due, as stated, to the insufficiency of the protection levees, which, in spite or repeated verbal and written warnings and instructions the contractor had failed to make good.

Breaks occurred in the muck levees on Sections 4 and 5, but were discovered and repaired by the contractors for those sections before any serious trouble resulted.

An inspection by boat, began on Friday the 9th inst. and finished on Monday the 12th inst., participated in by several members of your Honorable Body, showed the manner in which the levees had stood the test throughout. Fortunately, for all interests involved, the ice had gone out prior to the freshet, and we were relieved of the apprehended results of a combination of ice and high water. The Santa Fe bridge, below the spillway, escaped without damage. The embankment of the Calumet Terminal Railroad was badly eroded, but on my order E. D. Smith & Co. reinforced it with material taken from the Main Channel before damage was done. We found that the levees formed of loam and muck suffered quite severely from wave action, and would have been cut away to a dangerous extent had the wind been from a quarter which would have thrown the full force of the waves against them.

Levees formed of muck or loam have no stability against wave action, and their protection from such action by a facing of rip-rap is necessary to save them from destruction. The work of repairing damages already done, and properly guarding against future damage should be commenced as soon as the stage of the water will permit. I will report the flood volume as computed from our actual observation as soon as the data obtained can be worked up and checked.

Very respectfully submitted.

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

CONDITION OF THE WORK AND EQUIPMENT OF AGNEW & CO. ON SECTION 6.

The Clerk presented a report from the Chief Engineer with reference to the condition of the work and equipment of Agnew & Co., contractors on Section 6 of the Main Channel; and the report was read.

In connection with the report, Mr. Cooley presented a resolution forfeiting the contract with Agnew & Co. for the work on Section 6, as set forth in the resolution; and the resolution was read.

Mr. Cooley, seconded by Mr. Altpeter, moved that the report be ordered printed and placed on file, the resolution adopted and the Clerk authorized and directed in accordance with the resolution.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

On which result the President declared the motion carried, the report ordered printed and placed on file, the resolution adopted and the Clerk authorized and directed in accordance with the resolution.

The following is

THE REPORT:

“CHICAGO, March 16, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have to report as follows upon the equipment of Section No. 6, Agnew & Co. Contractors. I have to-day made a personal examination of this section and found the equipment as per schedule:

Tram cars.....	22 at \$40.	\$ 880
Inclines equipped for service.....	1	3,000
Inclines unfinished.....	2	1,750
Steam pumps, piston (6-in.) working.....	1	800
Steam pumps, centrifugal (6-in.) idle.....	1	800
Hydraulic dredges.....	1 possibly	10,000
		<u>\$17,130</u>

In addition to the above plant one steam shovel has been purchased at a reported cost of \$5,500, and is now being moved from Sag Bridge to the work. Further equipment reported to me by Col. R. O'S. Burke, Chief Engineer for Agnew & Co. as

having been purchased one (1) 6-inch centrifugal pump and material for two inclines.

The value of the outfit now in sight, presumably the property of the Agnew Company, is about \$12,630. This is exclusive of the hydraulic dredge which is owned by other parties and is working upon a yard-age basis.

To complete Section 6 by the 31st day of March, 1896 (see contract of February 14th, page 1762 of Proceedings), gives but twenty-five working months from March 1, 1894. At that date there remained in place upon this section 417,114 cubic yards of glacial drift of the original prism of the channel, with a probable enlargement to meet conditions set forth in contract of February 14, 1894, of 137,000 cubic yards or a total of 554,114 cubic yards.

554,114 cubic yards at 27 cents...\$149,610 78  
557,661 cubic yards at 73½ cents. 409,880 84

\$559,491 62

Progress per month, \$559,491.62 divided by 25 = \$22,379.64 requiring the removal of 82,888 cubic yards of glacial drift per month. Under the best management in the hands of the most experienced workmen there remains but scant time to do the work between now and March 31, 1896.

The progress made in the past thirty days in equipping this section shows a lack of enterprise, and blindness to the exigencies of the work which is not encouraging.

Past experience, which is a part of the history of this great enterprise, will not justify me in vouching for the future of this work under the present management and control and therefore I cannot and will not commit myself to an expression of faith in the ability of Messrs. Agnew & Co. to make progress within the next thirty days, or at any time thereafter upon this section, by which I mean to say that the steps taken by Agnew & Co. to enlarge their plant for doing the work and to increase their force so as to satisfy the Chief Engineer of this District, that the rate of progress at the end of sixty days from February 14th last shall be up to the rate required to insure the completion of said work within the time called for by their contract do not satisfy me that I should be warranted in certifying to your Honorable Board as said Chief Engineer, that I believed the said Agnew & Co. would, within



the time stated, make the required rate of progress.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

The following is

#### THE ORDER:

"*Resolved*, That the contract with Agnew & Co. for work on Contract Section six (6), bearing date of the 18th day of July, 1892, with all modifications and supplements thereto, be and the same is hereby declared forfeited, and that the Clerk of the District be and he is hereby authorized and directed to serve a certified copy of this resolution on said Agnew & Co."

#### NEW SPECIFICATIONS FOR SECTION 6 TO BE PREPARED.

Mr. Cooley presented an order directing the Chief Engineer to prepare new specifications for Section six (6), and submit the same as soon as practicable; and the order was read.

Mr. Cooley, seconded by Mr. Kelly, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the order adopted and the Chief Engineer instructed in accordance with the same.

The following is

#### THE ORDER:

"*Ordered*, That the Chief Engineer prepare new specifications for Section 6 and submit the same to the Board as soon as practicable."

#### PURCHASE OF "BUCKINGHAM" LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering with reference to the purchase from Ebenezer Buckingham of certain right of way lands in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and

directed to pay Ebenezer Buckingham on the voucher of the Attorney for the said right of way lands as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay Ebenezer Buckingham on the voucher of the Attorney for the said right of way lands, as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, March 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with Ebenezer Buckingham, for the purchase from him, for the corporate purposes of this District, of the land herein-after described, for the sum of one hundred and twenty-eight thousand nine hundred and four (\$128,904) dollars.

Your Committee recommends that the Clerk of this District be directed to pay, on the voucher of the Attorney, to said Ebenezer Buckingham, the sum of one hundred and twenty-eight thousand nine hundred and four (\$128,904) dollars in full payment for the following described land, to-wit:

That part of the east half ( $\frac{1}{2}$ ) of the southwest ( $\frac{1}{4}$ ) of Section thirty (30), Township thirty-nine (39) North, Range fourteen (14) East of the Third Principal Meridian, lying north of the northerly boundary line of the right of way of the Atchison, Topeka and Santa Fe Railroad Company in Chicago, and south of the center thread of the West Fork of the South Branch of the Chicago River and of a line drawn from a point in the west line of said Section thirty (30) five hundred and twelve (512) feet north of the southwest corner of said section to a point in the west line of the east half ( $\frac{1}{2}$ ) of the southwest quarter ( $\frac{1}{4}$ ) of said section, one thousand fifty-five and five-tenths (1,055.5) feet north of the south line of said section and projected thence in a straight line to its intersection with said



center thread of said river, said premises comprising that portion of Canalport included within the boundaries aforesaid and being situated in the County of Cook, in the State of Illinois.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*  
 L. E. COOLEY,  
 WM. BOLDENWECK,  
 JOHN J. ALTPETER,  
 THOMAS KELLY,  
 W. H. RUSSELL,

*Joint Committee on Finance and Engineering."*

APPROVAL OF REQUISITIONS NOS. 391  
 AND 392.

Mr. Cooley, Chairman, presented a report from the Committee on Engineering and Finance returning Requisitions Nos. 391 and 392 from the Engineering Department, as amended, which requisitions were referred to that Committee at the meeting held March 14, 1894, (page 1811 of the Proceedings); and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file and that Requisitions Nos. 391 and 392 for the Engineering Department, as amended, be allowed.

On roll call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None,

Upon which result the President de-

clared the motion carried, the report adopted, ordered printed and placed on file and Requisitions Nos. 391 and 392 for the Engineering Department, as amended, allowed.

The following is

THE REPORT:

"CHICAGO, March 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance to whom was referred Requisitions Nos. 391 and 392 from the Engineering Department, report the same back and recommend their approval as amended by the Committee, said amendments being a reduction in the quantities of stationery as shown on the face of the requisitions.

Very respectfully,

(Signed) L. E. COOLEY,  
*Chairman.*  
 B. A. ECKHART,  
 W. H. RUSSELL,  
 THOMAS KELLY,  
 WM. BOLDENWECK,

*Joint Committee on Engineering and Finance."*

(Enclosing Requisitions Nos. 391 and 392.)

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. JUDGE,  
*Clerk.*

March 17,]

—1821—

[1894.

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES,  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MARCH 21, 1894.

OFFICIAL RECORD.

*Published by authority of the Board, of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and fourteenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, March 21, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8) members, were present.

MINUTES.

The minutes of the regular meeting held March 14, 1894, and of the adjourn-

ed session of the same regular meeting, held March 17, 1894, were approved as printed on motion of Mr. Boldenweck, seconded by Mr. Russell.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

*Construction Account—*

McArthur Bros. (Sec. 2, March 16, 1894).....	\$3,937 50
Gilman & Co. (Sec. 3, March 16, 1894).....	7,056 00
McArthur Bros. (Sec. 4, March 16, 1894).....	5,402 25
The Qualey Construc- tion Co. (Sec. 5, March 16, 1894).....	118 12
Agnew & Co. (Sec. 7, March 16, 1894).....	3,730 13
Mason, Hoge, King & Co. (Sec. 8, March 16, 1894).....	4,336 72



Halvorson, Richards & Co. (Sec. 9, March 16, 1894).....	\$ 4,979 28
E. D. Smith & Co. (Sec. 10, March 16, 1894)....	13,580 00
Mason, Hoge & Co. (Sec. 11, March 16, 1894).....	8,876 00
Mason, Hoge & Co., (Sec. 12, March 16, 1894).....	6,240 94
Mason, Hoge & Co., (Sec. 13, March 16, 1894).....	11,773 12
Smith & Eastman (Sec. 14, March 16, 1894)....	3,832 50
Heldmaier & Neu, (Sec. A, March 16, 1894)...	6,873 40
Western Dredging & Improvement Co. (Sec. C, March 16, 1894).....	1,850 62
E. D. Smith & Co. (Sec. D, March 16, 1894)....	4,555 32
Ricker, Lee & Co. (Sec. F, March 16, 1894)....	1,974 22
The Heidenrich Co. (Sec. A, trestle, final).....	2,533 64
	<u>\$91,649 76</u>

## ENGINEERING DEPARTMENT.

Diebold Safe and Lock Co. (safes for division offices).....	\$340 28
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## LAW DEPARTMENT.

P. F. Pettibone & Co. (stationery).....	\$ 6 00
Barnard & Gunthorp, (printing briefs)....	106 00
Orrin N. Carter, (post-age stamps).....	10 00
Elbert H. Gary, (legal services).....	100 00
S. A. Moffett Co. (liv-ery).....	10 00
	<u>\$232 00</u>
Grand total.....	<u>\$92,222 04</u>

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 475, Law Department, (letter heads and envelopes).....	45 00
--	-------

No. 710, Treasury Department, (letter heads and envelopes)....	17 00
No. 1057, Clerical Department, (letter heads and envelopes)....	42 00

Total.....\$104 00

Mr. Kelly, seconded by Mr. Boldenweck, moved that Requisitions No. 475 for Law Department, No. 710 for Treasury Department and No. 1057 for Clerical Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 475 for Law Department, No. 710 for Treasury Department, and No. 1057 for Clerical Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending March 17, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, March 21, 1894. .

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employees in each department for the week ending March 17, 1894, as the same have been reported to me:

Engineering Department.....	112
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	37
Total employees.....	<u>162</u>

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

## PROGRESS OF WORK DURING FEBRUARY, 1894.

The Clerk presented a report from the Chief Engineer, transmitting a report from the Superintendent of Construction,

showing rates of progress and daily average of force and equipment on the various sections during February, 1894.

The report, with enclosure, was read and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, March 21, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith the report of the Superintendent of Construction, Mr. U. W. Weston, for the month of February, showing the rate of

progress made upon the several sections and the daily average of force and equipment employed.

Respectfully submitted,  
(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

"CHICAGO, March 16, 1894.

*Isham Randolph, Esq., Chief Engineer.*

DEAR SIR—I herewith transmit my monthly statement for February, showing the amount of work done during the month, the condition of the work up to the 1st inst., and the monthly force report, as follows;

STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE MONTH OF FEBRUARY, 1894 (MAIN CHANNEL).

SECTIONS.	Amount Done During February.	Average Monthly Requirement.	Deficiency for February.	Excess Over Monthly Requirement.	Per Cent. of Monthly Requirement February.
F.....	\$ 4,102 10	\$ 10,681 81	\$ 6,579 71	.....	0.38
E.....	.....	14,929 08	14,929 08	.....	0.
D.....	11,622 93	15,286 51	3,663 58	.....	0.76
C.....	4,198 51	13,352 40	9,153 89	.....	0.31
B.....	.....	11,775 18	11,775 18	.....	0.
A.....	.....	24,488 17	24,488 17	.....	0.
1.....	.....	.....	.....	.....	.....
2.....	22,100 00	18,552 55	.....	\$ 3,547 44	1.19
3.....	11,200 00	28,251 42	17,051 42	.....	0.40
4.....	8,330 00	19,647 27	11,317 27	.....	0.42
5.....	3,591 00	13,202 26	9,611 26	.....	0.27
6.....	3,861 00	14,743 47	10,882 47	.....	0.26
7.....	5,124 50	17,405 63	12,281 13	.....	0.29
8.....	4,251 00	21,295 08	17,044 08	.....	0.20
9.....	13,457 50	19,232 36	5,774 86	.....	0.70
10.....	35,120 00	22,472 29	.....	12,647 71	1.56
11.....	19,668 58	19,493 74	.....	174 84	1.01
12.....	12,680 00	19,172 88	6,492 88	.....	0.66
13.....	23,247 25	18,588 65	.....	4,658 60	1.25
14.....	5,062 35	19,891 82	14,829 47	.....	0.25
Totals.....	\$187,616.72	\$342,462.58	\$175,874.45	\$21,028.59	0.50

TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVERSION) AND CONDI

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION.	
		Glacial Drift	Solid Rock.	Glacial Drift	Solid Rock.
		Cubic Yards.	Cubic Yards.	Cubic Yards.	Cubic Yards.
I	Christie & Lowe.....	3,874			
F	Ricker, Lee & Co.....	282,056		158,234	
E	Streeter & Kenefick.....	469,163		95,718	
D	E. D. Smith & Co.....	303,793			
C	Western Dredging & Imp. Co.....	171,013		162,537	
B	Heldmaier & Neu.....			204,626	
A	Heldmaier & Neu.....	103,871		108,786	
1	Alfred Harlev.....	107,600		5,876	
2	McArthur Bros.....	171,400		29,500	
3	Gilman & Co.....	149,510			
4	McArthur Bros.....	185,200			
5	The Qualey Construction Company	248,400			
6	Agnew & Co.....	159,600		112,500	
7	Agnew & Co.....	81,400	82,200	96,700	41,000
8	Mason, Hoge, King & Co.....	18,100	90,300	52,900	95,500
9	Halvorson, Richards & Co.....	50,700	107,700	37,700	16,000
10	E. D. Smith & Co.....	26,400	302,500	27,400	56,500
11	Mason, Hoge & Co.....	43,492	319,400	5,756	11,483
12	Mason, Hoge & Co.....	27,400	331,000		
13	Mason, Hoge & Co.....	32,822	435,700		
14	Smith & Eastman.....	44,566	125,500		
Totals.....		2,680,360	1,794,300	1,098,233	220,483

Main Channel, glacial drift.....  
 Main Channel, solid rock.....  
 River Diversion, glacial drift.....  
 River Diversion, solid rock.....

Total amount required to be done March 1, 1894.....  
 Total amount done March 1, 1894.....

Amount short as per contracts.....  
 Above shortage reduced by special work on River Diversion as per  
 Net shortage.....

Total value of work done March 1, 1894.....  
 Reserved..... } 12½ per cent.....  
 } 10 per cent.....

Total value of vouchers paid including those of March 1, 1894.....



TION OF WORK ON CONTRACTS, AS SHOWN BY ESTIMATES OF MARCH 1, 1894.

Total value of work done March 1, 1894, on each section.	Total value of work required to be done March 1, 1894.	Amounts behind as per contracts.	Amounts ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary January 1, 1894, to time of completion.	Progress made during month of February, 1894.
\$ 968 50	\$ 5,680 00	\$ 4,711 50		\$11,360 00	\$11,360 00	
104,568 88	92,196 64		\$12,372 24	11,524 58	10,751 37	\$ 8,251 94
155,342 28	124,301 76		31,040 52	15,587 72	13,434 51	
80,315 27	122,292 08	41,976 81		15,286 51	16,457 70	11,622 98
78,384 25	116,365 20	37,980 95		14,545 65	15,181 13	4,198 52
55,249 02	107,303 92	52,054 90		13,412 99	14,347 39	
65,126 21	205 359 36	140,233 15		25,669 92	29,116 18	
30,638 52	236,212 68	205,574 16		21,473 88	26,625 72	
87,888 00	251,926 74	164,038 74		19,378 98	24,040 90	22,100 00
62,465 70	104,359 65	41,893 95		28,188 65	27,764 65	11,200 00
81,024 00	287,275 38	206,251 38		20,519 67	25,892 29	8,330 00
67,068 00	178,230 51	111,162 51		13,202 26	16,347 24	3,591 00
73,467 00	210,591 63	137,124 63		15,599 38	19,410 66	4,023 00
136 858 00	253,492 74	116,634 74		18,777 24	21,951 52	5,124 50
157,345 50	351,621 30	194,275 80		23,441 42	29,169 63	4,251 00
118,109 30	297,506 85	179,397 55		19,833 79	25,568 28	13,457 50
300,650 00	355,206 45	54,556 45		23,680 43	26,373 31	35,120 00
277,122 30	297,113 10	19,990 80		19,807 54	20,621 43	19,668 58
270,606 00	289,318 35	18,712 35		19,287 89	19,406 36	12,680 00
334,219 47	278,829 75		55,389 72	18,588 65	16,855 10	23,247 25
100,768 20	298,377 30	197,609 10		19,891 82	25,709 24	5,062 55
\$2,638,184 40	\$4,463,561 39	\$1,924,179 47	\$98,802 48	\$389,008 97	\$436,384 61	\$191,928 62

	Cubic Yards.
.....	2,680,360
.....	1,794,300
.....	1,098,233
.....	220,483
.....	\$4,463,561 39
.....	2,638,184 40
.....	\$1,825,376 99
previous statements.....	115,421 85
.....	\$1,709,955 14
.....	\$2,638,184 40
.....	\$320 557 92
.....	53,927 37
.....	374 485 29
.....	\$2,263,699 11

## FORCE REPORT—DAILY AVERAGE, FEBRUARY, 1894.

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists	Chan- nelers.	Air Com- pressors.	Cantilever Derricks.	Steam Derricks.	Locomo- tives.	Cars.	Dredges.	Pile Drivers.	Cable ways
I.....	27	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
H.....	15	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
G.....	3	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
F.....	74	.....	2.0	3.0	.....	.....	.....	.....	.....	.....	3	21	.....	.....	.....
E.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
D.....	83	6	2.0	2.5	.....	.....	.....	.....	.....	.....	4	35	.....	.....	.....
C.....	75	2	2.0	1.6	.....	.....	.....	.....	.....	.....	4	18	.....	.....	.....
B.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A.....	37	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1.....	11	1	.....	1.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2.....	261	13	.....	2.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3.....	274	7	.....	2.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4.....	152	11	.....	3.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5.....	61	1	1.1	4.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6.....	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7.....	102	1	.....	3	3.5	.....	1.7	.....	1.1	.....	.....	.....	.....	.....	.....
8.....	113	12	.....	1.4	1.7	.....	1.5	.....	.....	.....	.....	.....	.....	.....	.....
9.....	213	5	.....	4.3	10	1.5	4.4	.....	1.3	.....	.....	.....	.....	.....	.....
10.....	382	5	.....	3.5	15.4	3.2	7.1	1.1	2.7	.....	.....	.....	.....	.....	.....
11.....	150	3	.....	4.0	11	.....	5.6	1.0	1.5	.....	.....	.....	.....	.....	.....
12.....	95	2	.....	2.0	5.3	.....	3.4	1.0	1.5	.....	.....	.....	.....	.....	.....
13.....	197	4	.....	4	11.6	.....	7	1.0	3.1	.....	.....	.....	.....	.....	.....
14.....	78	5	.....	2	2.2	1	1.8	.....	.....	.....	.....	16	.....	.....	.....
Totals.....	2448	87	7.1	45.8	60.7	5.7	32.5	4.1	11.2	.....	11	90	.....	.....	.....

"No work was done during the month on Sections "E," "B," "A" and 1. The first named Section is still ahead of contract requirement, but is in bad condition at present owing to the failure of the contractors to put up their levee to the proper height, which caused its inundation on the 5th inst. Continued unfavorable weather prevented the operation of the hydraulic dredges on Sections "A" and "B" in February, but they are now at work and are expected to make a good showing during the present month.

Section 1 is forfeited and readvertised.

On the whole the weather was not as favorable as in January, yet a number of Sections show an encouraging increase over the amount of work done during that month, as will be seen by a comparison of the progress tables for the respective months.

With the exception of Section "E," above referred to, the recent high water has not materially affected any of the other sections; it has, however, demonstrated the necessity for protecting all earth levees with rip-rap to resist the erosive effect of wave action. This should have early attention.

The present situation of Section 5 is, I believe, already understood, as well as

the necessity for providing measures adapted to the existing conditions.

Respectfully submitted,

(Signed) U. W. WESTON,  
Supt. of Construction."

#### CONDITION OF WORK AND EQUIPMENT OF AGNEW & CO. ON SECTION 7.

The Clerk presented two reports from the Chief Engineer with reference to the condition of the work and the equipment of Agnew & Co. on Section 7 of the Main Channel; and the reports were read.

In connection with the report, Mr. Cooley presented a resolution directing the Clerk to notify Agnew & Co. as provided therein, of intention to forfeit their contract ten days after such notice; and the resolution was read.

Mr. Cooley, seconded by Mr. Russell, moved that the reports be ordered printed and placed on file, the resolution adopted and the Clerk directed in accordance with the same.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the reports ordered printed and placed on file, and

the resolution adopted and the Clerk directed in accordance with the same.

The following are

THE REPORTS:

"CHICAGO, March 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On yesterday, March 16th, I made a personal inspection of Section No. 7, Agnew & Co., contractors. The visible equipment was as per schedule:

High power derricks, 2 valued at.....	\$36,000 00
Steam boilers in service, 3 valued at.....	1,800 00
Steam boilers out of repair, 2 valued at.....	900 00
Steam drills, 7 valued at....	2,310 00
Steam pumps, 3 valued at...	675 00
Steam pumps, 2 valued at...	200 00
Steam channelers, 4 valued at	8,000 00
Steam hoists, 3 valued at....	9,000 00
Steam drills in stock, 14 valued at.....	4,620 00
Water service pipe and pump	1,500 00
	<hr/>
	\$65,005 00
Tram cars, thirty-six.....	1,260 00
	<hr/>
	\$66,265 00

In addition to the items given above, Col. R. O'S. Burke, Chief Engineer for Agnew & Co., reports having purchased for this section:

Twenty mules, assumed value.....	2,000 00
Twenty carts, assumed value	400 00
Two hoisting engines.....	2,060 00
Two 50-horse power boilers..	2,000 00
	<hr/>
	\$72,725 00

But from this total of \$72,725, for reasons to be given hereinafter, it will be proper to deduct the value of the inclines used with the high power derricks; this value I assume to be about one-third of the reported cost of the combined machines, or \$12,000, which would leave a visible investment of \$60,725. All the plant which I report as being in place, except the three hoists and one small piston pump, has been on the section for the past six weeks, and yet the output of February was only 6,300 cubic yards. It appears that work was ordered commenced on this section October 15th, 1892, so that these contractors have had one year and five months in which to equip this section and make progress.

By contract, Section No. 9 passed into the hands of Halverson, Richards & Co. in January of the present year, and their output for February was 17,500 cubic yards. The value of the plant for this section (7) is as stated, about \$60,725. By contrast, the cost of the plant with which Section 8 is being equipped foots up \$143,600. The total number of cubic yards of solid rock on this section, as shown by our revised estimates, is 915,389, deducting the yardage excavated to March 1st (82,200), we have a balance of 833,189 cubic yards to be excavated in 25 months to complete by March 31st, 1896, as per contract of February 14th, 1894, or 33,327 cubic yards per month. Figuring 26 days per month, the daily output should be 1282 cubic yards; but experience on a number of sections on this work has shown that the average working time for each month is but 20 days, upon which basis the daily output should be 1666 cubic yards.

These contractors have become convinced that the combination of high power derrick and inclined hoist will not meet the requirements of the work. The inclines do not deposit material far enough from the berm to admit of discharging the entire volume of the excavation by this means without encroaching seriously upon the reserved margin. With that happy reliance upon that which they are *about to do*, which has characterized them throughout, they now propose to abandon the inclines, lengthen the booms of the high power derricks about 25 feet, mount the derricks thus revised upon the berms on either side of the channel, hoist the excavated material directly from the bottom at the rate of eight yards every two minutes, and discharge it over the tops and in rear of the existing spoil banks. At this rate of *future* progress each high power derrick would take out 2,400 cubic yards every ten hours.

The output for the month of February for combined high power derrick and incline was less than 150 cubic yards per day each. Turning to my report on the condition of the Agnew Sections of August 2d, 1893 (page 1359 of Proceedings), I find that at the time the drawings for these machines were submitted to me they were rated at 80 cubic yards per hour; this backward view is full of significance for the future and justifies my own lack of faith in the too sanguine hopes of the contractors.

I am in possession of estimates and information supplied by H. A. Miller,



Asst. Engineer in charge of the division of which Section No. 7 is a part, which shows the actual amount of solid rock excavated between 12 M. February 26th and the same hour March 16th, to have been 10,237 cubic yards, or nearly 640 cubic yards per day for 16 working days. This output divides up thus—6,946 cubic yards for the two high power derricks which worked 26.7 days, showing only 260 cubic yards apiece for each day worked; 3,291 cubic yards for the three steam hoists, which made 18.8 days, or about 175 cubic yards apiece for each day worked. From 7 A. M., March 16th, to 7 A. M., March 17th, the high power derricks performed two days' work and the steam hoists four days' work, with the results shown:

High power derricks...	520 cubic yards.
Hoists .....	700 "

Total output... .. 1,220 "

Checking this result by the number of men employed, multiplied by the output per man as shown by observations made during an extended period, the output arrived at was 1,194 cubic yards.

I do not believe that the spurt of the 24 hours in question can be taken as an assured promise of like results continuously. This extraordinary effort fell short of the required rate of progress, on a basis of 26 working days per month, 62 cubic yards; and 446 cubic yards short of what would be required for 20 days per month.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

"CHICAGO, March 21, 1894.

To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:

GENTLEMEN—That you may have the latest and fullest information relating to progress on Section No. 7, Agnew & Co., contractors, I have to advise you of the results shown for the four days from March 16 at noon to March 20 at noon, as reported by H. A. Miller, Assistant Engineer in charge. He reports the excavated material for the period specified as 3186 cubic yards, or an average of  $796\frac{1}{2}$  cubic yards per day, or  $485\frac{1}{2}$  cubic yards less than the required rate per day, figuring 26 working days to the month, and  $869\frac{1}{2}$  cubic yards less than the required rate figuring 20 working days to the month,

which experience has shown to be about the actual working month.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

The following is

#### THE RESOLUTION:

"Resolved, That the Clerk of the District be and he is hereby directed to give the following notice to Agnew & Co.:

"To AGNEW & Co—

You are hereby notified that it is the intention of the Sanitary District of Chicago to forfeit your contract for work on Contract Section No. Seven (7), dated July 18, 1892, with all modifications and supplements thereto, ten days after the service of this notice upon you.

SANITARY DISTRICT OF CHICAGO,

By .....  
*Clerk,"*

Which said notice shall be signed by the Clerk of the District."

#### CONTINUANCE OF HYDRAULIC DREDGE WORK ON SECTION 6.

The Clerk presented a report from the Chief Engineer making certain recommendations with reference to the continuance of the hydraulic dredge work on Section 6; and the report was read.

With reference to the report and recommendations, Mr. Cooley presented an order authorizing and directing the continuance of the hydraulic dredge work on Section 6 under the direction of the Chief Engineer, as provided in the order; and the order was read.

Mr. Cooley, seconded by Mr. Russell, moved that the report be ordered printed and placed on file, the order adopted and the Chief Engineer authorized and directed in accordance with the same.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, the order adopted and the Chief Engineer authorized and directed in accordance with the same.

The following is

THE REPORT:

"CHICAGO, March 21, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—In view of the present situation on Section No. 6 I would recommend that you issue authority to me direct, or else to a committee of your own body, under which arrangements can be made with the owners of the Dredge for continuing the hydraulic dredge work on said section during the period which must elapse before that section can be re-let. The advantage to the District in having this work continue is so evident that it seems unnecessary to support my request with arguments in its favor.

Respectfully submitted.

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

The following is

THE ORDER:

"WHEREAS, Work has been suspended upon Section No. 6 by Agnew & Co. under a declaration of forfeiture made by this Board, and

WHEREAS, There is now upon that section a hydraulic dredge which is capable of removing quite a large volume of the muck which overlies the rock west of the Bracken bank during the time which will be consumed in advertising and re-letting the said section. Therefore be it

*Ordered*, That the Chief Engineer be authorized and directed to cause the removal of so much of said muck as may be practicable, provided that the cost thereof shall not exceed 22 cents per yard, the work to be done under his personal supervision and in such manner as he may direct, and to terminate any time at his option, and not later than the re-letting of said Section 6 to contract."

EXTRA WORK ORDERED ON ACCOUNT OF  
FLOODS OF MARCH 5.

The Clerk presented a report from the Chief Engineer with reference to extra work ordered done for protection from the high waters of the flood of March 5, 1894, and requesting the approval of his action; and the report was read.

Mr. Altpeter, seconded by Mr. Eckhart,

moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

THE REPORT:

"CHICAGO, March 21, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—During the recent high waters it became necessary in protecting the interests of this District to do certain work for which no authority had issued from you. I therefore ask that you approve what has been done and authorize the payment of the bills incurred in doing it.

On Section E the levee was not finished and the entire section was inundated and this disaster was supplemented by a break in the Illinois and Michigan Canal.

The bills for repairing damages to the Canal bank are not all in, but the Clerk of this District has paid out \$1,863.13 for labor, and for this amount he should be reimbursed.

On Section A, it was necessary to strengthen the bank of the Illinois and Michigan Canal which was done by Heldmaier & Neu on our order at a cost of \$801.20.

On Section No. 1 the levees had to be strengthened and the spoil banks raised to a safe height. This has been done by a force employed under the direction of H. B. Alexander, Assistant Engineer, and the rolls have not come in to me as yet. I supplied him with money from my emergency fund to pay discharged men.

Some work is required on the Canal bank on Section C and I have ordered it to be done.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

AUTHORITY FOR FOUNDATION BORINGS  
EAST OF SUMMIT.

The Clerk presented a report from the Chief Engineer making requisition for authority to make borings for foundations of bridges along the Main Channel East of Summit as provided in the report; and the report was read.

Mr. Cooley, seconded by Mr. Bolden



week, moved that the report be ordered printed and placed on file, the recommendations made therein concurred in and the Chief Engineer authorized to have foundation borings made as provided in the report.

On roll call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, the recommendations made therein concurred in, and the Chief Engineer authorized to have foundation borings made as provided in the report.

The following is

#### THE REPORT:

“CHICAGO, March 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The time when the construction of the street and railway crossings of the Main Channel at and east of Summit must be considered being close at hand, the need of the necessary preliminary information is being felt. The problem of foundations for these structures is one of much importance, and its solution will require a knowledge of the material below the bottom of the Main Channel. Authority is therefore asked for the purpose of having made the necessary borings at the location of these crossings, at a cost not exceeding \$2.00 per lineal foot of bore holes made, and a total cost not to exceed \$1,000.

Very respectfully,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*”

#### PURCHASE OF “COYNE” LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering with reference to the purchase from Luke Coyne Jr., and Michael Coyne, Trustees, of certain right of way lands in Cook County, and authorizing and directing the Clerk to pay for said right of way lands on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay Luke Coyne, Jr. and Michael Coyne, Trustees, on the voucher

of the Attorney for the said right of way lands as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Excused and not voting—Mr. Prendergast—one (1). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay Luke Coyne, Jr. and Michael Coyne, Trustees, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

The following is

#### THE REPORT:

“CHICAGO, March 21, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with Luke Coyne, Jr. and Michael Coyne, Trustees, for the purchase from them for the corporate purposes of this District of the land herein-after described for the sum of fifty-five thousand eight hundred and twenty (\$55,820.00) dollars.

Your Committee recommends that the Clerk of this District be directed to pay on the voucher of the Attorney to said Luke Coyne, Jr. and Michael Coyne, Trustees, the sum of fifty-five thousand eight hundred and twenty (\$55,820.00) dollars, in full payment for the following described land, to-wit:

That part of the east half (E.  $\frac{1}{2}$ ) of the southeast quarter (S. E.  $\frac{1}{4}$ ) of the north-east quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-five (35), Township thirty-nine (39) North Range thirteen (13) east of Third Principal Meridian, lying north (N.) of the northerly boundary line of the right of way of the Atchison, Topeka and Santa Fe Railroad Company in Chicago, except the north (N.) one hundred (100) feet thereof, said premises lying and being situated in the County of Cook, State of Illinois.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*

L. E. COOLEY.

THOMAS KELLY,

WM. BOLDENWECK,

W. H. RUSSELL,

JOHN J. ALTPETER,

*Joint Committee on Finance and Engineering.*”



## REPORT ON BRIDGES OVER ILLINOIS AND MICHIGAN CANAL.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, accompanied by a joint report from the Chief Engineer and Attorney, with twenty (20) enclosures, and also by a communication to President Wenter from the Chicago & Alton Railroad Company, presented and referred to that Committee at a meeting held January 31, 1894, (page 1723 of the Proceedings), all concerning bridges over the Illinois and Michigan Canal, and making recommendations with reference to the same; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and with all enclosures, placed on file, and the recommendations made in the report concurred in, except that with reference to the Chicago & Alton Bridge at Summit, upon which action was postponed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and, with all enclosures, placed on file, and the recommendations made in the report concurred in, except that with reference to the Chicago & Alton Bridge at Summit, upon which action was postponed.

The following is

THE REPORT, WITH ENCLOSURE:

“CHICAGO, March 20, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the C. & A. bridge over the Canal near Summit, referred to the Committee by communication of the Chicago & Alton Railroad Company on Jan. 31, 1894, Page 1723, the Committee has considered the same, along with the other bridges crossing the Canal and belonging to the District, and report as follows:

The Canal authorities have called the attention of the Board to the raising of these bridges, but no final action has been taken. With a view to bringing the matter to a conclusion the Chief Engineer and Attorney were requested to take the whole matter under advisement, and their report with the appended correspondence is submitted herewith.

It appears that the railway bridge near

Summit is not needed and as its condition is unsafe that the same should be removed. It also appears that a foot bridge near the line of Sections 2 and 3 is also in an unsafe condition and should be removed. The bridge at Willow Springs is being raised by Heldmaier & Neu and the one at Sag will be raised by the McArthur Brothers, as required by the Canal Commissioners.

Your Committee recommends that the recommendations made by the Chief Engineer and Attorney be approved, and further that the Chief Engineer cause the railway bridge near Summit and the foot bridge near the line of Sections 2 and 3 to be removed as soon as practicable.

The communication of the Chicago & Alton Railroad Company is also returned herewith for filing.

Very Respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

B. A. ECKHART,

W. H. RUSSELL,

THOMAS KELLY,

W. BOLDENWECK,

J. J. ALTPETER,

*Joint Committee on Engineering and Finance.”*

(Enclosing C. & A. letter and joint report, with twenty (20) sub-enclosures.)

“CHICAGO, March 19, 1894.

*To the Joint Committee on Engineering and Finance:*

GENTLEMEN—The question of the removal or elevation of the various bridges over the Illinois and Michigan Canal belonging to the District, in compliance with the request of the Canal Commissioners, referred to us by your Committee for our recommendation therein, has received attention, and after communicating through the Superintendent of Construction with the various contractors supposed to be interested in the use of said bridges, we make the following recommendations:

1. With regard to what is known as the Swift Railroad bridge near Summit, the correspondence with Ricker, Lee & Co. and Streeter & Kenefick shows that they have made other arrangements and no longer desire to use said bridge. The bridge is in such condition that it could

not safely be raised. As we can see no probable need for the use of a bridge in that location by the Sanitary District which would warrant the replacing of the present structure by a new bridge, we recommend that it should be taken down.

2. Heldmaier & Neu desire to retain the use of the bridge known as the Piper bridge, and report that they are taking active steps to raise same in accordance with the direction of the Superintendent of the Canal.

3. In regard to the Griffin & Connelly bridge at the Sag, Gilman & Co. have made arrangements to use the Koch bridge, and the Qualey Construction Company have arranged with McArthur Brothers to use the spur put in by them for unloading heavy machinery. McArthur Brothers express a willingness to raise this bridge as directed by the Superintendent of the Canal provided they may have the exclusive control and use of the spur from the Alton road.

Inasmuch as the correspondence shows that there is no likelihood of any use of said bridge being required by other contractors which is not already provided for, we recommend that McArthur Brothers be permitted to raise said bridge as required by the Canal Commissioners, they to do the work at their own expense, to preserve the tow-path roadway under same, and to grade suitable approaches for the wagon road at each side of same, the Sanitary District, however, to have the direction and control of same except that McArthur Brothers may have such use of same for railroad purposes as shall not interfere with the reasonable use of same for a wagon road.

4. We learn that the foot bridge near Willow Springs near the junction of Sections two (2) and three (3) is in an unsafe condition and it should be removed.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*  
ORRIN N. CARTER,  
*Attorney.*

[Enclosing twenty (20) letters.]

REPORT ON AGREEMENT WITH SANTA FE  
FOR BRIDGE FIVE (5.)

Mr. Cooley, Chairman, presented a report and order from the Joint Committee

on Engineering and Finance with reference to and accompanied by report and revised agreement in duplicate, with plat, between the District and the Atchison, Topeka and Santa Fe Railway Co. concerning the changing of bridge five (5) of said railroad across the Des-plaines river below the Spillway, which report, with a form of agreement and plat, was presented and referred to that Committee at the meeting held March 14, 1894 (page 1813 of the Proceedings); and the report and order, with accompanying revised agreement, were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report and order be adopted, with accompanying revised agreement and plat, ordered printed, and with all other enclosures, placed on file, the recommendations made in the report concurred in and the President and Clerk authorized and directed to execute the accompanying revised agreement on behalf of the District as provided in the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Pendergast, Russell and Wenter—eight (8) Nays—none.

Upon which result the President declared the motion carried, the report and order adopted, with accompanying revised agreement and plat, ordered printed, and with all other enclosures, placed on file, the recommendations made in the report concurred in and the President and Clerk authorized and directed to execute the accompanying revised agreement on behalf of the District as provided in the order.

The following is

THE REPORT, WITH ACCOMPANYING REVISED AGREEMENT:

“CHICAGO, March 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the communication of the Chief Engineer, transmitting a form of agreement in regard to certain changes in the bridge over the river diversion near Summit, the same has been considered.

The object of the agreement is to lengthen the opening by means of a pile trestle between the present bridge and the west levee and raise the grade of the same two feet for the purpose of better accommodating floods, the work to be done by the Santa Fe Railway Company



at a cost to the District not exceeding six thousand (\$6,000) dollars.

The Committee has amended the agreement so that the material removed from the old bank shall not be deposited in the way of the stream. An order covering the question, with the agreement thereto attached, is submitted for adoption by the Board.

The letter of the Chief Engineer is returned herewith for filing.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman,*

B. A. ECKHART,  
W. H. RUSSELL,  
THOMAS KELLY,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(Enclosing report with agreement and plat and revised agreement, with plat, in duplicate and order.)

The following is

#### THE AGREEMENT:

"*Agreement, Made this — day of March, A. D. 1894, between J. W. Reinhart, John J. McCook, Joseph C. Wilson, as the Receivers of the Atchison, Topeka & Santa Fe Railroad Company, hereinafter called the first party, and the Sanitary District of Chicago, hereinafter called the second party: Witnesseth,*

WHEREAS, Said second party in the construction of its drainage channel and the works connected therewith, has developed a necessity for changes in the flood channel of the Desplaines river where said river is crossed by said first party upon its bridge number Five, in the Northeast quarter of Section Twelve (12), Town Thirty-eight (38) North, Range Twelve (12) East of the Third Principal Meridian; and

WHEREAS, Such changes in said flood channel are likely to endanger said bridge and require the elevation of said bridge and the tracks leading thereto and a change in the water-way at said bridge in order to guard against damage to said bridge and said tracks by the water in said river,

*It is hereby agreed.* That said first party shall, at once, begin the rebuilding of said bridge and the approaches thereto in accordance with the plat and detailed drawings and specifications hereto attached and marked "Exhibit A"; and shall, with all practicable speed, prosecute such work until the same is completed, and that, as soon as the rebuilding of said bridge is completed and the track laid thereon, the embankment forming the west approach to said bridge shall be removed and piling substituted therefor in accordance with said plat and detailed drawings.

And that in case any questions as to the manner in which such work shall be done shall arise, they shall be decided by the Chief Engineers of the parties hereto.

It is further agreed that all earth removed for the enlarging of the water ways shall be deposited at such places and in such manner as shall not interfere with the flowage of water and under the direction of the second party's Chief Engineer.

That said second party shall pay the actual cost of all the work herein provided for upon the bills being rendered to it by the first party; provided, however, that it shall not be liable for such cost beyond the sum of six thousand dollars.

Witness the hands and seals of the said parties binding their successors and assents the day and year first above written.

Executed in duplicate," etc.

The following is

#### THE ORDER:

"*Ordered,* That the President and Clerk be and they are hereby authorized to enter into and make the agreement hereto annexed, with J. W. Reinhart, John J. McCook and Joseph C. Wilson as Receivers of the Atchison, Topeka & Santa Fe Railroad Company."

#### CLAIM OF DR. RE FOR STABLE.

The Clerk presented a communication from Dr. N. Re, making a claim for value of a stable near Willow Springs, said to have been removed by order of the Chief Engineer of the District.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the claim be referred



March 21,]

—1835—

[1894.

to the Joint Committee on Finance and Engineering without being read.

The motion prevailed unanimously, and the claim was so referred without reading.

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*







## PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

## SANITARY DISTRICT OF CHICAGO.

MARCH 28, 1894.

## OFFICIAL RECORD.

(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)

## REGULAR MEETING.

The two hundred and fifteenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, March 28, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8) members, were present.

## MINUTES.

The minutes of the regular meeting held March 21, 1894, were approved as

printed on motion of Mr. Kelly, seconded by Mr. Boldenweck.

## VOUCHERS.

The Clerk presented the following vouchers:

## ENGINEERING DEPARTMENT.

*Construction Account—*

Thos. F. Judge, (Sec. E, repairing break in Canal banks).....	\$1,863 13
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## CLERICAL DEPARTMENT.

Thos. F. Judge, (postal cards).....	\$ 5 00
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## LAW DEPARTMENT.

Chicago Daily Law Bulletin, (binder)...	\$ 1 00
A. Hannibal, (repairing furniture).....	3 00

Alex. White, (expert,  
appraising improve-  
ments on right of  
way) ..... \$190 00  
\$ 194 00

## GENERAL ACCOUNT.

Sharp & Smith, (vac-  
cine points) ..... \$ 22 50  
Nicholas Re, (ambu-  
lance service) ..... 25 00  
\$ 47 50

## POLICE DEPARTMENT.

Pettibone, Wells & Co.  
(scratch pads) ..... \$ 1 26  
Standard Oil Co. (kerc-  
sine) ..... 19 02  
\$ 20 28

Grand total ..... \$2,129 91

Mr. Kelly, seconded by Mr. Bolden-  
weck, moved that the vouchers, as read  
and shown above, be approved and  
ordered paid.

On roll-call the vote stood: Yeas—  
Messrs. Altpeter, Boldenweck, Cooley,  
Eckhart, Kelly, Prendergast, Russell and  
Wenter—eight (8). Nays—None.

Upon which result the President de-  
clared the motion carried and the vouch-  
ers, as read and shown above, approved  
and ordered paid.

## REQUISITIONS.

The Clerk presented the following  
requisitions:

No. 393, Engineering Department,  
(maps) ..... \$24 50  
No. 394, Engineering Department,  
(tapes) ..... 11 25  
No. 395, Engineering Department,  
(sundries) ..... 37 25  
No. 477, Law Department, (sta-  
tionery). ..... 11 50  
Total ..... \$84 50

Mr. Boldenweck, seconded by Mr.  
Kelly, moved that Requisitions Nos. 393,  
394 and 395 for the Engineering De-  
partment, and No. 477 for the Law De-  
partment, as read and shown above, be al-  
lowed.

On roll-call the vote stood: Yeas—  
Messrs. Altpeter, Boldenweck, Cooley,  
Eckhart, Kelly, Prendergast, Russell and  
Wenter—eight (8). Nays—None.

Upon which result the President de-  
clared the motion carried, and Requi-  
sitions Nos. 393, 394 and 395 for the En-  
gineering Department, and No. 477, for

the Law Department, as read and shown  
above, allowed.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in ac-  
cordance with the rules, showing the  
number of persons in the employ of the  
District for the week ending March 24,  
1894.

The same was read, and, by unani-  
mous consent, was ordered printed and  
placed on file.

The following is

## THE REPORT:

“CHICAGO, March 28, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report here-  
with the number of employes in each  
department for the week ending March  
24, 1894, as the same have been reported  
to me:

Engineering Department.....	110
Clerical Department.....	4
Treasury Department.....	1
Law Department....	8
Police Department.....	37
Total employes.....	160

Respectfully submitted,

(Signed) , THOS. F. JUDGE,  
Clerk.”

PREPARATION OF SPECIFICATIONS FOR  
RE-LETTING OF SECTION 6.

The Clerk presented a report from the  
Chief Engineer, stating that the speci-  
fications for the re-advertisement and re-  
letting of Section 6 had been prepared  
and were being considered by the Law  
Department; and the report was read.

Mr. Kelly, seconded by Mr. Cooley,  
moved that the report be ordered printed  
and placed on file, and the specifications,  
when completed by the Law Department,  
referred to the Joint Committee on En-  
gineering and Finance.

The motion prevailed unanimously,  
and it was so ordered.

The following is

## THE REPORT:

“CHICAGO, March 28, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN:—The specifications under  
which it is proposed to readvertise Sec-

tion No. 6 have been prepared and are being considered by the Law Department. They will be ready for your consideration within a very short time.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

PURCHASE OF ADDITIONAL "BUCKINGHAM" LANDS.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering with reference to the purchase from Ebenezer Buckingham of certain additional right of way lands in Cook County, and authorizing and directing the Clerk to pay for said right of way lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Ebenezer Buckingham, on the voucher of the Attorney, for said additional right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay Ebenezer Buckingham on the voucher of the Attorney, for said additional right of way lands as provided in the report.

The following is

THE REPORT:

"CHICAGO, March 28, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with Ebenezer Buckingham for the purchase from him for the corporate purposes of this District of the land hereinafter described for the sum of, twenty-seven thousand three hundred and twenty-eight (\$27,328.00) dollars.

Your Committee recommends that the Clerk of this District be directed to pay on the voucher of the Attorney to said Ebenezer Buckingham the sum of twenty-seven thousand three hundred and

twenty-eight (\$27,328.00) dollars, in full payment for the following described land, to-wit:

That part of the east half (E.  $\frac{1}{2}$ ) of the southwest quarter (S. W.  $\frac{1}{4}$ ) of Section thirty (30), Township thirty-nine (39) North, Range fourteen (14), East of the Third Principal Meridian, bounded and described as follows:

Beginning at a point on the west line of said east half (E.  $\frac{1}{2}$ ) of said southwest quarter (S. W.  $\frac{1}{4}$ ), one thousand and fifty-five and five-tenths (1,055.5) feet north of the south line of said section, and running thence north sixty-seven degrees (67°) and thirteen minutes (13') east to the center thread of the West Fork of the South Branch of the Chicago River, thence northwesterly along said center thread to its intersection with a line drawn northerly from the intersection of the west line of the east half (E.  $\frac{1}{2}$ ) of said southwest quarter (S. W.  $\frac{1}{4}$ ) with the southerly margin of said river, and at right angles to the general course of said river there, thence southwesterly along said line to said margin of said river, thence south on said west line of the east half (E.  $\frac{1}{2}$ ) of said southwest quarter (S. W.  $\frac{1}{4}$ ) to the point of beginning; said premises lying and being situate in the County of Cook, in the State of Illinois.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*

L. E. COOLEY.

WM. BOLDENWECK,

JOHN J. ALTPETER,

THOMAS KELLY,

W. H. RUSSELL,

*Joint Committee on Finance and Engineering."*

REMOVAL OF CHICAGO & ALTON BRIDGE AT SUMMIT.

Mr. Cooley, seconded by Mr. Kelly, moved that the recommendations made in the report of the Joint Committee on Engineering and Finance, presented at the meeting held March 21, 1894, (page 1832 of the Proceedings) with reference to the removal of the Chicago & Alton bridge at Summit, be concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the recom-



mendations made in the report of the Joint Committee on Engineering and Finance, presented at the meeting held 21, 1894, (page 1832 of the Proceedings) with reference to the removal of the Chicago & Alton bridge at Summit, concurred in.

APPROVAL OF EXTRA WORK ORDERED ON  
ACCOUNT OF FLOODS OF MARCH 5TH.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by the report of the Chief Engineer concerning extra work ordered done for protection from the high waters of the flood of March 5, 1894—which report was presented and referred to that Committee at the meeting held March 21, 1894 (page 1830 of the Proceedings)—recommending that the action of the Chief Engineer, as set forth in said report, be approved; and the report was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the report be adopted ordered printed and, with enclosure, placed on file, the recommendations made therein concurred in and the action of the Chief Engineer, as set forth in the report, approved.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and, with enclosure, placed on file, the recommendations made therein concurred in, and the action of the Chief Engineer, as set forth in said report, approved.

The following is

THE REPORT:

“CHICAGO, March 28, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the request of the Chief Engineer for approval of certain emergency work undertaken on account of the recent flood, referred to the Joint Committee on Engineering and Finance at the meeting held March 21, 1894, (page 1830 of the Proceedings) your Committee report as follows:

We recommend that the action taken by the Chief Engineer in closing the crevasse in the bank of the Illinois and Michigan Canal on Section E, and in

raising and strengthening low places in the Illinois and Michigan Canal bank on Section A, and in repairing the levees on Section 1, be approved, and that vouchers be drawn therefor, and that the cost of the work on Section E be charged to the contractors for that Section.

We recommend also that the Chief Engineer be authorized and directed to do any work needed in raising and strengthening low places in the bank of the Illinois and Michigan Canal on Sections B and C, at a cost not exceeding five hundred (\$500) dollars.

We recommend further that the emergency fund of the Chief Engineer be increased to three thousand (\$3,000) dollars, in order that he may be better prepared to handle emergency work promptly, and turn in the vouchers therefor for the approval of the Board.

Your Committee suggests that the Chief Engineer be instructed to report at once the work required to meet any high water conditions and the additional authority that may be needed and that he report also any reason for the failure to complete any needed work that may have been authorized.

The report of the Chief Engineer is herewith returned for filing.

Respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

W. BOLDENWECK,

W. H. RUSSELL,

J. J. ALTPETER,

*Joint Committee on Engineering and  
Finance.”*

(Enclosure.)

REPORT ON COMMUNICATION FROM NAVY  
DEPARTMENT.

Mr. Cooley, Chairman, presented a report and statement, with letter of the Chief Engineer, from the Joint Committee on Engineering and Federal Relations, with reference to and accompanied by a communication to President Wenter from Geo. P. Blow, of the U. S. Navy Department, requesting certain information concerning the water communication, locks, canals, etc., between Chicago and the Mississippi River, presented and referred to that Committee at the meeting held August 16, 1893 (page

1403 of the Proceedings); and the report and statement, with letter of the Chief Engineer, were read.

Mr. Cooley, seconded by Mr. Russell, moved that the report and accompanying statement be adopted and, with report of the Chief Engineer, ordered printed and, with all enclosures, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Excused and not voting—Mr. Prendergast—one (1). Nays—None.

Upon which result the President declared the motion carried, the report and accompanying statement adopted, and with report of the Chief Engineer ordered printed and, with all enclosures, placed on file, and the recommendations made in the report concurred in.

The following is

THE REPORT, WITH ACCOMPANYING  
STATEMENT AND LETTER:

“CHICAGO, March 28, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—On August 16, 1893, the Board referred to the Joint Committee on Engineering and Federal Relations a communication from Geo. P. Blow, of the Bureau of Navigation, Navy Department, of date August 12, and requesting certain specific information in regard to the water communication between Chicago and the Mississippi River, the Committee being instructed to act and report back to the Board.

In response, the Chief Engineer has prepared for the Committee a letter giving the information requested, in part, but the formal reply has been withheld to await certain maps and diagrams which would better exhibit the work contemplated. The Committee has prepared a formal statement which, along with certain exhibits mentioned therein, is submitted for the approval of the Board. We recommend that the Clerk be directed to transmit the same in response to the communication of Mr. Blow.

The matter submitted covers the scope of the inquiry except in regard to the present available communication by water through the Illinois and Michigan Canal and the

Illinois River, in charge of the State Board of Canal Commissioners.

The communication of Mr. Blow is returned for filing.

Respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*

WM. BOLDENWECK,

W. H. RUSSELL,

THOMAS KELLY,

JOHN J. ALTPETER,

*Joint Committee on Engineering and  
Federal Relations.”*

(Enclosing letter—report and statement,  
with plans.)

—  
“CHICAGO, October 3, 1893.

*To the Joint Committee on Engineering  
and Federal Relations, Sanitary Dis-  
trict of Chicago:*

GENTLEMEN—Under date of September 29th, I am advised by the Clerk of your Honorable Board that you desire me to submit at your meeting, called for October 5th next, a report on the communication of August 19th last, signed by Geo. P. Blow, U. S. Navy, in which he asks for information under five different heads.

*First*—‘Is it possible for a steamer to go from Chicago to the Mississippi River?’ It is not now possible, but with the completion of the project now being carried out by this District, provided the Federal Government lends its sanction and co-operation, it will become possible.

*Second*—‘What is the maximum length of vessel that can pass through the locks?’ No locks have yet been designed under the direction of this Board; when they are designed, they will doubtless be proportioned to accommodate the largest craft navigating the Mississippi river.

*Third*—‘What is the maximum breadth of beam that can pass through the lock?’ See reply to No. 2.

*Fourth*—‘What is the maximum draft of water that can pass through the locks?’ The depth of water in the channel provided for by this Board is twenty-two (22) feet.

*Fifth*—‘What is the maximum height which can pass under bridges?’ No bridges



have yet been constructed and no clear head room decided upon. Eighteen (18) feet will probably be the minimum distance between water line and lowest projection of bridge structure.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

“STATEMENT IN REGARD TO WORK UNDER WAY AND PROPOSED BETWEEN CHICAGO AND THE MISSISSIPPI RIVER.

The Sanitary District of Chicago is a Municipal Corporation, organized under a law of the State of Illinois, enacted in 1889, for the purpose of disposing of the sewage of the City of Chicago through a main channel, connecting with the waters of Lake Michigan, and discharging in the vicinity of Lockport. It has powers through adjuncts and collateral works to do whatever is required to effectually accomplish its primary purpose, viz.: The disposal of the entire sewage product of the city in a sanitary manner. It is also obligated to do certain work on the slope between Lockport and Joliet, and is privileged to do any work required in the Desplaines and Illinois Rivers down to the Mississippi River, by way of removing obstructions, to avoid damage that may be occasioned through excess of water supplied through its main channel. A definite standard of dilution is prescribed, based on population, by which the capacity of the Main Channel is always to be maintained in a fixed ratio to the total population.

In prescribing the minimum width and depth of this channel, the legislature had definitely in mind the requirements of navigation and a commercial development, and rested in the Sanitary District the rights to dockage and water-power that should be incidentally created. The policy of the State at large in regard to the commercial utility of the channel and in regard to extending the work through the State to the Mississippi is fully set forth in the joint resolution passed at the same session of the legislature. This policy calls for a channel of not less than a depth of twenty-two feet across the Chicago Divide and fourteen feet deep thence to the Mississippi, so designed as to permit future increase in depth.

The maps accompanying this statement show the channel as located across the Chicago divide, and the course of the Desplaines and Illinois Rivers across the state. The profile and cross-sections show the dimensions and grade of the Main Channel from the Chicago River to Lockport, and also of the Desplaines and Illinois Rivers, the grade line for a depth of fourteen feet being projected thereon below the town of Utica.

It will be observed that the Main Channel in its width is one of the largest ship canals in the world, and that the nominal depth is twenty-two feet at extreme low water of Lake Michigan. Should the channel, however, be extended through the city of its full proportions, the actual depth will be twenty-four feet at low water and about twenty-six feet at mean stage, or of the same mean depth as the Suez and Manchester Ship Canals.

The plans for connecting the channel with Lake Michigan are entirely tentative, and the same may be said of the further extension of the work down the slope below Lockport and through the City of Joliet. It is not deemed wise to reach a final conclusion until demanded by the exigencies of actual construction.

The work between the Chicago River at Bridgeport and Lockport, about twenty nine miles, is substantially under way, all the right of way being in hand, and twenty-six miles actually under contract. The further work, including that down to and through the City of Joliet, bridging and railway changes, will be provided for during this season. The date set for the completion of the contracts is 1896, and the opening of the channel is expected in that year. The progress on several of the contracts, the work on which is already one-third done, assures the Board that these results may be attained, barring unforeseen contingencies.

The cost of all the work projected and deemed absolutely necessary, between Bridgeport and Lake Joliet, the deep pool below Joliet, will be \$23,000,000 to \$25,000,000, as nearly as can now be estimated. This distance is thirty-six miles, of which twenty-nine miles will be complete for navigation. The portion of the channel from Bridgeport to Summit, some seven miles, is to be given a bottom width of 110



feet, the widening to the full prism to be left to future needs. The flow of water through the channel is to be controlled by regulating works near Lockport.

It is expected that the channel will form a much-needed extension of the harbor facilities of the city, and be adequate to accommodate any future development of lake navigation or deep water connection with the Atlantic Ocean. To this end, the channel may be readily widened in the earth, and the right of way will be sufficient for any such development.

The effect of the large volume of water in the Illinois River will be to give an effective river navigation throughout the 227 miles of the Lower Illinois, without obstructing locks and dams, sufficient for the largest classes of Mississippi River steamboats from the Mississippi to Utica, with very slight improvement on some of the north bars. Thus the first result will be to bring lake and river navigation within sixty miles of each other, whereas they are now practically 320 miles apart. It is estimated that an expenditure of about six million dollars will provide fourteen feet of water below Utica in a channel over 300 feet wide.

No works have been projected for the intermediate section between the end of the Main Drainage Channel and Utica, over which a descent of some 140 feet must be provided for by means of locks. The consideration given the matter warrants an estimate not exceeding \$15,000,000 for a navigation of fourteen feet. It will be seen, therefore, that the expenditure now contemplated by the Sanitary District, especially when the channel through the city is provided for, is much larger than that required to complete the work to the Mississippi; in other words, the cost of the first forty miles is greater than the next 280 miles.

With the improvements now in progress by the Mississippi River Commission, it is anticipated that boats of a draft of fourteen feet will be able to reach the gulf for over seven months of each year, or for a period longer than lake navigation is open via the Straits of Mackinaw, and that the route will be closed by ice for an average of seventy days only. Since 1887, the route would have been open throughout the winter, for five years out of six.

The State policy underlying the legislation evidently contemplates that the entire project in its larger purposes shall be carried out by the co-operation of the Sanitary District, the State and the Nation. It is a part of the policy of the Board to enlist these forces in proper time.

Exhibits to accompany above statement are:

Map and Profile—Main Drainage Channel.

Profile—Chicago Divide and Desplaines and Illinois Valley.

Map—Watersheds of the Desplaines River and other streams.

Map—Illinois River Basin.

Law—Sanitary District Act and Joint Resolution.

Letter—Chief Engineer."

CLAIM OF STREETER & KENEFICK FOR  
HARD MATERIAL ON SECTION E.

The Clerk presented a communication from Messrs. Streeter & Kenefick, contractors on Section E of the Main Channel, making claim for additional price for certain hard material said to have been encountered in excavating said section; and the communication was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

THE COMMUNICATION:

"CHICAGO, March 26, 1894.

*Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—No doubt some, if not all of you, have long since been informed, through your Engineers and from other sources, that there has been a strata of material found of our Section (E), which is harder and more difficult to handle than you expected to find from the information that you had from the borings or otherwise, and we are sure that there was nothing that we could see from the borings, or any information that we could gather that showed us the hardness

or the density of any such material; but, nevertheless, it is there and open for the inspection of any one and by such inspection they will find a class of material not provided for in any specification touching on any kind of earthwork of any description, either in your specifications or any standard railroad specifications, which they have been revising from time to time to fit the material they have found; and the reason is that this material takes as much powder to blow it as the average rock work, and a great deal more than good rock, such as the class of rocks—say for the first ten feet—on your rock sections; then after it is blown it comes out in large blocks, which have to be either chained and loaded on cars, or using the shovel crane as a derrick to load with, or break them with giant power so that the shovel can take it, just as if you were handling ledges of rock. When in the car the door must be left off so as to dump the car; so the car goes out and where it ought to take say three yards, we are doing well to have it take one, beside all the time lost in chaining, etc.

Now, we think any of your men in charge of the work will back us up in this, and the quantities put out with our shovels will show that they did not put out one-third as much as they ought to have done, or what the same shovels and same crew did on the Northwestern Railroad last year in hard, stiff, yellow clay.

Now, gentlemen, this material cannot be handled for glacial drift prices, and, as there is only a strata of it on our section, apparently from six to twelve feet deep according to the appearance of what we have opened on the east side, we think, in justice to ourselves, and to assist the progress of the work, you ought to make a special price for this strata of hard material. There is no trouble to see just where it starts and stops on either end and top and bottom, and we only ask you to pay for what we find of it, much or little. We think we ought to have for so much of this hard material as may be found, at least double our price and the cost of powder, or a soft rock price; a price between loose rock and hard rock, as this material does not come under the head of hard pan or loose rock that you may be able to find. The specifications on hard pan sums up to what requires six mules on plow by some roads; others where it requires more than six mules; others where it takes one picker to one shoveller. Loose rock is that which can generally be handled with picks and bars. Now, we claim that this

material cannot be plowed by any plow made, as we had a special plow made by the Western Wheel Scraper Company to plow it; we put twelve mules on the plow but could not touch it. We claim that it cannot be moved by picks or bars, and it would be safe to say that six pickers could not keep one shoveller going. To handle it as solid rock requires more powder than good rock; so if we were handling this material for a railroad company where there were three classifications they would give a percentage of it solid rock and the balance loose, so as to make an average between the two. As our output is not or cannot be more than one-third of what we should do in any kind of fair digging, we will say, if the matter is settled by the first of April, 1894, so that we can begin to arrange our plans accordingly for an early start, we will make as good a record this year as we did last; and we will agree not to put out less than five hundred thousand yards and will try to go over six hundred thousand. We are having plans made for side delivery, (with a view that if this matter is settled, we would have a price to handle it) with men; we will cover it with men, besides what we can do with our shovels, but we claim that the best way to handle this hard material is with men and derricks while it has to be blown and comes out in such large blocks. But, if it is not settled and we begin work it will only be for the name of working, as the less we do the less our loss will be, and we will only be waiting for relief to come and if it does not come we will sooner or later have to lie down and we will be out that much more money and the work will be that much more behind.

We feel sure that if this section was to be re-let to-day, it would go for as large a price, or nearly so, on the whole, as we ask you for the hard portion of it. There is yet about one million two hundred thousand yards to move. We do not think the hard could run over one-third, and it may not run near that, as our test is at the east side which is the high side of the ground and it is reasonable to think it might get lighter running toward the river and low ground.

We trust that your Honorable Body will look at this from a business standpoint, and not think that we are asking for an unjust claim, and, if settled, we will prove to you by our good work and progress for this season, and until the completion of the work, that we appreciate it.

(Signed)

STREETER & KENEFICK."



OFFICES TO BE CLOSED ON TUESDAY,  
APRIL 3, 1894.

Mr. Russell presented an order directing that the offices of the District be closed on Tuesday, April 3rd, 1894, the same being an election day; and the order was read.

Mr. Russell, seconded by Mr. Altpeter, moved the adoption of the order.

The motion prevailed unanimously, and the President declared the order adopted, and the offices of the District ordered closed on Tuesday, April 3rd, 1894.

The following is

THE ORDER:

"*Ordered*, That the offices of the Sanitary District be and they are hereby ordered closed Tuesday, April 3rd, 1894, the same being an election day."

PAYMENT OF LABORERS ON CROSS-LEVEE  
ON SECTION 1.

Mr. Cooley presented an order, authorizing and directing the Chief Engineer to pay from his Emergency Fund the unpaid laborers on the cross-levee on Section 1, as provided in the order; and the order was read.

Mr. Cooley, seconded by Mr. Altpeter, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Chief Engineer authorized and directed in accordance with the same.

The following is

THE ORDER:

"WHEREAS, On November 15, 1893, (page 1573 of the proceedings) the Chief Engineer was instructed and authorized to raise the road between the canal and river at Willow Springs so as to answer the purpose of a cross levee, and has, in accordance with said instructions, caused certain work to be done on said road to the amount of \$778.22 through Alfred Harlev as agent of the District; and,

WHEREAS, Upon careful investigation by the Engineering and Law Departments it has been found that \$295.34 is still due certain laborers for their work on said road; therefore, be it

*Ordered*, That the Chief Engineer be directed and instructed to pay from his emergency fund said laborers the respective sums found due them, taking the proper receipt therefor, the aggregate of said amounts not to exceed \$300.00; that he report the amount so paid to the Board for approval, and that said amount be considered in any future adjustment that this District may have with said Alfred Harlev for work that he has done for it."

JOINT COMMITTEE ON ENGINEERING AND  
FINANCE TO CONSIDER CHANGES AND  
STIPULATIONS ON SECTION 7.

Mr. Boldenweck presented an order, directing the Joint Committee on Engineering and Finance to consider necessary changes and stipulations for the continuance of the work on Section 7; and the order was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved the adoption of the order.

On roll call, the vote stood: Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Joint Committee on Engineering and Finance directed in accordance with the same.

The following is

THE ORDER:

"*Ordered*, That the Joint Committee on Engineering and Finance be instructed to consider any necessary changes and stipulations with reference to continuing the work on Contract Section Seven (7) as to which a notice of forfeiture has been given."

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Kelly, the Board then adjourned.

THOS. F. JUDGE.

Clerk.



March 28,]

—1845—

[1894.

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES,  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

APRIL 4, 1894.

**OFFICIAL RECORD.**

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

**REGULAR MEETING.**

The two hundred and sixteenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, April 4, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7) members, were present.

**MINUTES.**

The minutes of the regular meeting

held March 28, 1894, were approved as printed, on motion of Mr. Eckhart, seconded by Mr. Russell.

**VOUCHERS.**

The Clerk presented the following vouchers:

**PAY ROLLS.**

Eng. Dept., Chief Engineer's roll, (March, 1894).....	\$ 500 00
Eng. Dept., Div. No. 1, (March, 1894).....	7,309 66
Eng. Dept., Div. No. 1, Tow-path. (March, 1894).....	142 50
Eng. Dept., Div. No. 2, (March, 1894).....	1,828 50
Eng. Dept., Div. No. 3, (March, 1894).....	1,919 00
Eng. Dept., Div. No. 4, (March, 1894).....	340 00

Eng. Dept., discharged men's roll, (March, 1894).....	\$83 84
	\$ 12,123 50
Clerical Dept., Clerk's roll, (March, 1894)...	891 66
Treasury Dept., Treasurer's roll, (March, 1894).....	166 67
Law Dept., Attorney's roll, (March, 1894)...	1,536 66
Law Dept., Joliet roll, (March, 1894).....	333 34
	\$ 1,870 00
General Account, Sanitary Inspector's roll, (March, 1894).....	\$ 200 00
General Account, Trustees' roll, (March, 1894).....	2,333 34
	\$ 2,533 34
Police Dept., Marshal's roll, (March, 1894)...	3,049 98
Total.....	\$ 20,635 15

## ENGINEERING DEPARTMENT.

<i>Construction Account—</i>	
McArthur Bros. (Sec. 2, March 31, 1894).....	\$ 7,796 25
Gilman & Co. (Sec. 3, March 31, 1894).....	7,893 90
McArthur Bros. (Sec. 4, March 31, 1894).....	5,892 63
Agnew & Co. (Sec. 7, April 1, 1894).....	8,148 44
Mason, Hoge, King & Co. (Sec. 8, April 1, 1894).....	9,091 47
Halvorson, Richards & Co. (Sec. 9, April 1, 1894).....	9,487 54
E. D. Smith & Co. (Sec. 10, April 1, 1894).....	19,180 00
Mason, Hoge & Co. (Sec. 11, March 31, 1894).....	7,211 75
Mason, Hoge & Co., (Sec. 12, March 31, 1894).....	10,401 56
Mason, Hoge & Co., (Sec. 13, March 31, 1894).....	15,762 91
Smith & Eastman (Sec. 14, March 31, 1894)...	3,193 75
Heldmaier & Neu, (Sec. A, March 31, 1894)...	13,738 22
Heldmaier & Neu, (Sec. B, March 31, 1894)...	3,444 53
Western Dredging & Improvement Co. (Sec. C, April 1, 1894)	3,106 79
E. D. Smith & Co. (Sec. D, April 1, 1894).....	10,747 73
Ricker, Lee & Co. (Sec. F, April 1, 1894).....	1,668 32
Gahan & Byrne, (Sec. G, April 1, 1894).....	7,533 26
The Heidenreich Co. (Sec. L, April 1, 1894)	279 25
The Heidenreich Co. (Sec. M, April 1, 1894)	170 89

Heldmaier & Neu, (Sec. A, extra work, break in levee).....	801 20
	\$145,550 39

## CLERICAL DEPARTMENT.

Cameron, Amberg & Co. (stationery).....	\$ 2 34
Warner's Towel Supply, (toweling).....	1 50
Trevor Spring Water Co. (ice).....	3 00
	\$ 6 84

## LAW DEPARTMENT.

Jos. Donnersberger, (expert, right of way, March, 1894).....	\$ 300 00
Collins, Goodrich, Darrow & Vincent, (legal services).....	729 15
John P. Wilson, (legal services, January 1, 1894, to March 31, 1894).....	1,250 00
Chicago Telephone Co. (telephone service)...	33 00
Chicago Daily Law Bulletin, (subscription, 1894).....	3 00
Warner's Towel Supply, (toweling).....	2 70
Orrin N. Carter (expense).....	112 75
	\$ 2,430 60

## GENERAL ACCOUNT.

The Chicago Deposit Vault Co. (rent to April 1, 1894).....	\$ 2,110 00
John F. Higgins, (printing proceedings, March, 1894)...	106 78
	\$ 2,216 78

## POLICE DEPARTMENT.

Frank E. Michaud, (estimate, Hyman ave. Police Station).....	500 00
Grand total.....	\$171,339 76

Mr. Eckhart, seconded by Mr. Russell, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the



number of persons in the employ of the District for the week ending March 31, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“CHICAGO, April 4, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report here-with the number of employes in each department for the week ending March 31, 1894, as the same have been reported to me:

Engineering Department.....	111
Clerical Department.....	4
Treasury Department.....	1
Law Department....	8
Police Department.....	37

Total employes..... 161

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

#### MONTHLY REPORT FROM SANITARY INSPECTOR.

The Clerk presented a report from the Sanitary Inspector for the month of March, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT

“CHICAGO, April 4, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN — During the month of March several new cases of small-pox were discovered on Section 8, near the Town of Lemont. This created considerable uneasiness among the town authorities, and led to their making a request of the Board for permission to build a small-pox hospital on our right of way, and an expressed desire on their part to co-operate with the Trustees in building and maintaining the same. But as there was no suitable location on our line, and the arrangements we had made with the Health Department of Chicago to take charge of our patients

proving satisfactory, I considered it best to refuse this request, after the matter had been passed to me for final decision by the Committee on Health and Public Order. The occurrence of these cases in Mason & King's camp caused the Editor of the *Lemont Observer* to make an effort to vary the usually heavy, dull, flat character of his editorials by pumping a little ginger into them in the form of criticism of the officers of the Sanitary District in their method of dealing with small-pox. The result was an article that would be a prize winner in any competition of lunatics for literary honors. The only thing that its author seems to prove is that he is mentally cross-eyed and subject to attacks of rhetorical delirium. He was evidently laboring under one of these attacks when he wrote the wild and wooly conglomeration of dislocated facts, broken-backed logic and supposititious truths reeking with mendacity that constituted the body and bones of that remarkable production. I give a few samples of his method of his reasoning to enable you to judge of his wonderful logical powers. He goes on to state firstly that the man Noah Wolfgang was sent to the small-pox hospital in Chicago where he remained a short time, was then discharged and returned to Mason & King's camp with the evidence of small-pox fresh upon him, where he was allowed to mingle with the other laborers, thereby exposing them to the contagion; if we were to concede that this assertion were true, which it is not, then it was a case of negligence on the part of the Health Authorities of Chicago in discharging this man from the hospital too soon. And how from this, his own statement, he arrives at the conclusion that we are to blame for the action of the officers of the pest house is a mystery that lies buried in the deep dark recesses of his own gigantic brain. His next effort is equally as brilliant. He remarks that when the cases appeared in camp proper precautions were not taken in the way of fumigating the rooms that the patients were taken from and isolating those that were exposed to the contagion. As these cases were seen by one of Lemont's most distinguished physicians, it is a rather severe reflection on his good sense and utter lack of appreciation of the duty he owes to the public to assume that he did not give directions as to protective measures and insist that they

were rigidly adhered to. This is the sum and substance of his great discoveries and the airy foundation on which he attempts to build a criticism, but only succeeds in showing what a tremendous disturbance can be produced by fear when acting on a brain that is naturally delicate. My only excuse to this Board for calling its attention to this idiotic effusion and its pustular author is that it properly comes under the head of garbage, and as such is admissible in a sanitary report.

Most respectfully submitted,

(Signed) WILLIAM MARTIN, M. D.,

*Sanitary Inspector."*

#### MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of March, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT :

"Balance on hand at date of last report.....	\$2,858,997.67
Received from Town of Jefferson Collector, tax account.....	757.99
Received from Thos. F. Judge, Clerk, for Law Department, Land Account, (railroad iron sold Ricker, Lee & Co.)	345.54
Received from Thos. F. Judge, Clerk, for Law Department, Land Account, (railroad iron, buildings, etc. sold Streeter & Kenefick)...	1,337.20
Received from Thos. F. Judge, Clerk, for Engineering Department, Construction Account, materials sold (Atchison, Topeka and Santa Fe Railroad, acct. Lemont Bridge).....	41 60
Received from Thos. F. Judge, Clerk, for General Account, Rent, (Western Dredging & Improvement Co.)....	150 00
Received from Town of Lake Collector, Tax Account.....	17,477.15
Received from Town of Hyde Park Collector, Tax Account.....	21,978.97
Received from Town of Cicero Collector, Tax Account.....	4,383.09

Received from Town of Lake View Collector, Tax Account.....	\$ 9,871.52
Received from Town of Lyons Collector, Tax Account.....	1,062.39
Received from Town of Jefferson Collector, Tax Account.....	1,521.20
Received from National Bank of Illinois, interest for March.....	932.36
Received from Ft. Dearborn National Bank, interest for March....	919.97
Received from Metropolitan National Bank, interest for March....	945.10
Received from American Trust and Savings Bank, interest for March.....	35.66
Received from Chicago National Bank, interest for March.....	924.59
Received from Globe National Bank, interest for March.....	818.45
	<u>\$63,502.78</u>
Total cash received for month.....	\$2,922,500.45
Total cash disbursed during month as per annexed schedules, viz:	
Clerical Department....	\$914.34
Treasury Department..	166.67
Engineering Department..	15,437.77
Engineering—Construction—Department....	217,757.11
Law Department.....	2,506.62
Law Department—Land Account.....	206,224.00
General Account.....	3,173.90
Police Department.....	3,051.45
	<u>\$449,231.86</u>
Balance this date, in banks as per schedule endorsed hereon ....	<u>\$2,473,268.59</u>

(Signed) MELVILLE E. STONE,  
*Treasurer.*

CHICAGO, April 4, 1894."

#### SCHEDULE :

Fort Dearborn National Bank.....	\$506,122.08
National Bank of Illinois.....	406,962.61
Chicago National Bank.....	505,638.08
Metropolitan National Bank.....	508,859.95
American Trust and Savings Bank.....	21,003.79
Globe National Bank.....	524,682.08
Total.....	<u>\$2,473,268.59</u>

AGREEMENT WITH THE QAULEY CONSTRUCTION COMPANY FOR WORK ON SECTION 5.

Mr. Cooley, Chairman, presented a re-



port from the Joint Committee on Engineering and Finance, transmitting agreement with the Qualey Construction Company, in duplicate, with plat, with reference to and accompanied by the report of the Chief Engineer, making certain recommendations concerning the condition of the work of the said Construction Company on Section 5 of the Main Channel, presented and referred to that Committee at the meeting held March 14, 1894, (page 1814 of the Proceedings); and the report and accompanying agreement were read.

Mr. Cooley, seconded by Mr. Russell, moved that the report and accompanying agreement, with plat, be adopted, ordered printed, and, with all enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreement, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—six (6). Excused and not voting—Mr. Altpeter—one (1). Nays—None.

Upon which result the President declared the motion carried, the report and accompanying agreement, with plat, adopted, ordered printed, and, with all enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreement on behalf of the District, as provided in the report.

The following is

THE REPORT, WITH ACCOMPANYING  
AGREEMENT:

“CHICAGO, April 4, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the condition of matters on Contract Section Five (5), as set forth in the communication of the Chief Engineer, presented to the Board and referred to the Joint Committee on Engineering and Finance at the meeting held March 14, 1894, (page 1814 of the Proceedings) your Committee report as follows:

The specifications for this section are defective in several particulars, and permit methods of working which are not adapted to the unstable character of the material on this section and overlying the bed rock. The original specifications covered the entire work between Willow Springs and Lockport and these deficiencies

were not foreseen, and the prosecution of the work has disclosed conditions which could not reasonably have been anticipated.

To carry out the work on this section demands certain modifications of the contract. The essential modifications are the substitution of cement masonry for dry rubble retaining walls, the removal of the material excavated from the Main Channel to as great a distance as the right of way will permit, and provisions for fixing the limits of excavation, said modifications being for the purpose of relieving the ground adjacent to the Channel, of any unnecessary weight, and securing the same by a well constructed masonry wall.

The material excavated is thus removed to a much greater distance, and for this over-haul, an allowance of four (4) cents per yard is made. The price for retaining walls, within certain limitations, as subject to final determination by the new contracts on Sections 1 and 6.

A provision is also made for the final completion of the levee and for riprapping the same.

The form of an agreement has been matured with the Qualey Construction Company, and is transmitted herewith for the approval of the Board, and it is recommended that the President and Clerk be authorized and directed to execute the same on behalf of this District.

The report of the Chief Engineer is returned herewith for filing.

Very respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

B. A. ECKHART,

THOMAS KELLY,

W. H. RUSSELL,

*Joint Committee on Engineering and Finance.”*

(Accompanied by report and agreement, in duplicate, with plat.)

AGREEMENT:

“This Agreement, made this .....  
.....day of .....  
A. D. 1894, between the Sanitary District of Chicago, party of the first part, and the Qualey Construction Company, assignee of the contract for the excavation of that portion of the Main Drainage Channel known as contract Section five



(5), with the collateral work connected therewith, party of the second part, witnesseth: That,

WHEREAS, In the progress of the work upon said contract section it has been shown that, by reason of the unstable character of the material overlying the rock, it is unsafe to deposit excavated material so close to the Main Channel as permitted in the original contract because of the danger of the caving in of the banks of the channel from the weight of the superimposed spoil banks; and,

WHEREAS, The change in the location of said spoil banks rendered necessary, in order to guard effectually against land slides and the caving in of the banks of the channel as aforesaid will cause the material excavated to be hauled an extra distance of from four hundred (400) to eight hundred (800) feet and will also render useless some of the appliances heretofore provided and make expedient the adoption of other methods of doing the work.

Now, therefore, In consideration of the reciprocal promises herein contained, it is hereby covenanted and agreed by the parties hereto, that the original contract for said Section five (5) and the modifications thereof heretofore agreed upon be and the same are hereby further modified as follows, to-wit:

*Disposition of Material*—All glacial drift excavated from the Main Channel shall be wasted adjacent to the river diversion levee in spoil banks as shown on plan hereto attached, and not closer to the Main Channel than four hundred (400) feet, and no rock shall be wasted adjacent the channel until retaining walls shall have been built.

*Slopes*—The sides of the earth channel shall generally be sloped at an angle of forty-five degrees, unless, in the development of the work, the Engineer decides upon a different slope, in which case he shall prescribe and order such slope as, in his judgment, the conditions require. He shall cause the side slopes to be staked in accordance with the best information now in his possession as to depth of rock, and should the rock prove deeper than supposed, this shall not constitute a claim for an increase of the price per cubic yard on account of the added amount of material to be removed, and if on the other hand, the slope stakes should prove to have been set out too far, this shall not constitute a claim on account of the increased volume of back filling thereby required.

*Retaining walls*—Second party shall

proceed at once to uncover the rock on the north side of the channel, prepare the same for the erection of the retaining wall at the prescribed distance from the center of the channel and begin the erection of said retaining wall immediately, as provided for in the specifications which form a part of the original contract for said section. As soon as the retaining walls are built they shall be back-filled with broken stone or gravel as prescribed in the original contract. This work shall be undertaken first at such parts of the channel as in the opinion of the Engineer seem in greatest danger of being displaced, and shall be prosecuted at a rate of not less than eight hundred (800) cubic yards per week, this progress to date from June 1, 1894. First party shall not be liable for any slipping of banks or displacement of retaining walls, or extra excavation that might have been avoided by prompt and proper building of the retaining walls and the proper back-filling of same.

In case first party shall determine to lay said retaining walls in cement mortar instead of as hereinabove prescribed the following specifications shall be followed:

The preparation of the foundations of said cement wall shall conform to the requirements stipulated for dry rubble walls. Sand used to be coarse, clean and sharp, free from loam and pebbles.

*Cement*.—The best American hydraulic cement shall be used. Brand and quality to be subject to approval by the Chief Engineer, who shall from time to time cause such tests to be made as may seem to him proper for determining the quality of the cement which is shipped for use in the work. The development of tensile strength shall be one hundred (100) pounds per square inch, after having set seven days. The contractor shall keep on hand a supply of cement equal to the average consumption in the work during a period of ten days, and it shall be protected against rain or dampness, and so stored as to make the procurement of samples for testing easy. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

*Mortar*—The mixture shall be of sand and cement in equal parts. The sand and cement shall be thoroughly incorporated with each other before water is added. All mortar used shall be freshly mixed in clean boxes. No hard or partially set mortar shall be used. Water for mixing shall be clean. In laying the wall care shall be taken to secure bond

by proper use of headers and stretchers, so far as the stone available for the work will admit: but the wall shall be so thoroughly slushed with cement mortar as to insure the filling of all interstices. Stone used shall be sound and clean.

The wall shall be pointed with the specified mortar throughout before acceptance; all joints shall be raked out to a depth equal to three times their width to receive pointing. Work on cement masonry walls to be begun after the period of freezing in the spring and be suspended before freezing begins in the fall.

The walls shall conform to the dimensions specified in the original contract. The faces of the walls shall conform to the batter specified, the stones being generally bedded in planes perpendicular to the faces.

Weeping holes shall be left in the walls every fifty (50) feet at an elevation about two feet below datum. These holes shall not exceed thirty-six inches of cross-section.

First party hereby agrees to supply second party with building sand from its sand pile on Section C at the fixed price of twenty (20) cents per cubic yard measured after being loaded ready for removal. Second party to take the sand from the pile, screen and remove same without cost to first party, it being understood and agreed that first party is not to furnish sand in excess of the output of its pit on said Section C. as governed by its contract with the Western Dredging and Improvement Company, nor shall second party take more sand than is needed for building the cement walls on said Section five (5). Until the needs of second party for sand as herein limited are supplied no other party shall be furnished sand from this same supply until it is certain that the output will be in excess of the needs of said Section five (5).

*Levees*—The levee shown upon plan No. 1 between the points "a" and "b" shall be built to conform to the dimensions and grade prescribed, viz: thirty (30) feet wide on top, side-slopes one and one-half to one, elevation of top of levee at "a" to be 17.37 feet above datum and at "b" 17.32 feet above with such additional height to compensate for settlement as the Chief Engineer of the first party shall order. Said levee shall be undertaken at once and be completed immediately and shall be rippedraped as soon as practicable in such manner and to such thickness as the Chief Engineer shall direct.

*Removal of Spoil*—If in the judgment of the Chief Engineer the spoil which has already been deposited along the channel should be removed to insure the safety of the work, he may order its removal, and if so ordered second party shall remove so much of said spoil as said Engineer shall designate for removal, and shall deposit it upon the spoil area heretofore designated.

*Progress*—Second party shall so equip, man and prosecute said work that on or before May 15th, 1894, such a rate of daily progress shall have been attained as shall satisfy the Chief Engineer of first party that it will be able to complete the work on said section as provided in the original contract.

A failure to equip, man and prosecute the work or to make the progress above described to the satisfaction of said Chief Engineer shall be ground for a forfeiture of the contract for said section. And should second party at any time after said May 15, 1894, fail to make the progress herein specified, or to equip and man the work to the satisfaction of the Chief Engineer of first party, or fail to keep or perform any of the provisions of said original contract, or the modifications thereof, or this agreement, then in that case first party may, upon giving ten (10) days' notice in writing of its intention so to do, declare said contract and all contracts supplemental thereto forfeited.

*Water*—Water pumped from the Main Channel shall be discharged into the Illinois and Michigan Canal in such manner as may be directed by the Chief Engineer and so as not to saturate the earth between the Main Channel and said Canal, provided the consent of the Canal Commissioners be first obtained therefor.

It is further understood and agreed that the Chief Engineer of first party may order the prosecution of any particular portion of the work on said section which, in his judgment, needs special expedition, and it shall be so done as directed by him.

*Price*—In lieu of the prices specified in the original contract there shall be paid by first party, and second party shall accept as full compensation for the respective kinds of work specified herein and in the original contract with the modifications thereof, the prices following, to-wit:

A. For each cubic yard of solid rock excavation the price provided in the original contract, to-wit: the sum of seventy-three and one-half (73½) cts.; and for each



cubic yard of solid rock excavated and placed as rip rap upon the levee, measured in solid rock, the further sum of seventy (70) cents, or a total of one dollar and forty-three and one-half cents (\$1.43½) per cubic yard for solid rock so excavated and used for rip rap.

B. For each cubic yard of glacial drift removed from the prism of the channel, as defined by the slopes and dimensions hereinbefore set forth and prescribed, the sum of twenty-seven (27) cents with the further sum of four (4) cents per cubic yard added in compensation for the overhaul and changed methods of working covered by this supplementary agreement, making the total compensation to be paid for the removal and placing in spoil banks as aforesaid of glacial drift thirty-one (31) cents.

C. For each cubic yard of glacial drift removed from the existing spoil banks upon the order of the Engineer the sum of twenty-seven (27) cents.

D. For all retaining walls laid in cement mortar the price to be paid shall be the average of the prices which shall hereafter be agreed upon for the retaining walls upon Sections Nos. one (1) and six (6) in the first contract made thereof by said District after the date hereof whether upon a reletting or assignment of contract, provided that in no case shall the second party receive less than three dollars and twenty-five cents (\$3.25) nor more than three dollars and seventy-five cents (\$3.75) per cubic yard therefor.

*Finally*, It is hereby mutually covenanted and agreed that the contract for Section five (5) originally made with Agnew & Company and afterwards assigned to second party as aforesaid together with the supplementary agreements as were thereafter made and entered into, relative to said section, shall be of binding force and effect in all of their several terms, obligations and conditions except as specifically modified, amended and substituted for in this supplementary agreement.

*In witness whereof*, The parties hereto have caused these presents to be signed by their respective officers thereunto duly authorized on the day and year first above written," etc.

(With plat.)

CONSTRUCTION OF EMBANKMENT ON SECTIONS 11 AND 12.

The Clerk presented a communication from Messrs. Mason, Hoge & Co., contractors for Sections 11 and 12, sent in

answer to a communication from the Chief Engineer directing the construction of a certain embankment levee on said sections; and the communication was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

THE COMMUNICATION :

"ROMEOVILLE, WILL COUNTY, ILL., }  
March 28, 1894. }

*To the Honorable the Board of Trustees,  
Sanitary District of Chicago:*

GENTLEMEN—We are in receipt of a letter, March 15, from your Chief Engineer, stating that in regard to construction of embankment upon Sections 11 and 12 to which we demurred, had been left to the Attorney of the District, and after examination of the question at issue, the Attorney decided that we were required to build the embankment without further compensation from the District, and your Chief Engineer insists that we should at once commence work as the necessity for its completion was clearly shown by the recent freshets.

We wrote to your Chief Engineer, stating that we could not understand our contract as your Attorney wanted us to do, and also that we were certain that there were other points that bear upon the contract which your Attorney was not aware of, and after a personal interview with Mr. Randolph, he advised us to write and state our side of the question to the Board, as he had no power or authority to act otherwise than he was advised by the Attorney.

We will try to state the case as plainly as we can, but you must remember we are contractors, not Attorneys, and of course, give our work more attention than we do in stating cases, and thereby our side must suffer in not being as clearly laid before you as your Attorney may show up against us.

We did not know anything of this embankment until we came to sign our contract, and then we were told that it did not materially affect our contract, as we should only be required to haul a very small proportion of the material 800 feet instead of 300 feet or nearer point where we might waste or dump the material, and being anxious to ac-



commodate your Board, and thinking our losses thereby would be nominal, we consented to do so gratuitously, and as soon as we commenced work with our carts and cars we called upon your Chief Engineer at numerous times, requesting him to give us the stakes and orders to build this railroad embankment, and he gave us no satisfaction, and really led us to believe that there would be no railroad embankment and continually importuned us to put on more plant until we made a contract for cantilevers and finally got our work in such a condition (which your Engineers can explain to you) to build this embankment now would be a serious cost to us and taking our contract with all its bearings, we are satisfied that it does not require us to do this work at this late date without compensation.

We are, sorry we do not understand our contract as your Chief Engineer and Attorney seem to regard it, and hope you will investigate this subject thoroughly before you pass any harsh orders upon us, and we would like also to call your attention to the fact that in your first letting of fourteen sections you have been forced to make a new deal for ten at considerable trouble and delay, to say nothing of expense, and out of the four that have given you no trouble, we are working three, and there is such a thing as killing the goose that lays the golden egg.

Yours truly,

(Signed) MASON, HOGE & Co."

CLAIM FOR HARD MATERIAL ON SECTION F.

The Clerk presented a communication from Messrs. Ricker, Lee & Company, contractors for Section F, making claim for special classification on account of certain hard material said to have been encountered in excavation on said section; and the communication was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

THE COMMUNICATION :

"CHICAGO, April 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—We desire to call the at

tention of your Honorable Body to the fact that in the prosecution of work on our Section F of the Main Channel of the Sanitary District Canal certain material has been developed, which is so unlike anything covered by the data furnished to the contractors prior to submitting their bids for the work; that in our judgment it cannot properly be included under the original classification of "Glacial Drift" as set forth in the contract; but should be put under the head of a special classification, and a special price be paid for the removal of such material wherever it is encountered.

We would further represent that we are prepared to demonstrate to the Honorable Board of Trustees that it is impossible to move this material within limits of economy by any of the most improved methods employed in the excavation of the ordinary materials composing Glacial Drift. And that the cost of excavating the material in question must be at least double the highest price which you are paying for the excavation of any material under the head of your Glacial Drift classification.

We therefore respectfully request that this subject be properly brought before the Board of Trustees, and some action be taken which will lead to a proper investigation of the facts, and an equitable adjustment of a price for this difficult material.

An early adjustment of this matter will greatly hasten progress of work on our Section if we are given such assurance of financial relief as will warrant the adoption of the expensive methods necessary to the rapid excavation of this material.

Very respectfully submitted,

(Signed) RICKER, LEE & Co."

CLAIM FOR HARD MATERIAL ON SECTION C.

The Clerk presented a communication from the Western Dredging & Improvement Company, contractors for Section C, making claim for special classification on account of certain hard material said to have been encountered in excavation on said section; and the communication was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and

the communication was ordered printed and so referred.

The following is

THE COMMUNICATION:

"CHICAGO, April 3, 1894.

*Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN:—We understand that the question of a classification of the material found on certain earth sections of the main drainage channel is now before your Honorable Body for consideration, and we desire to call your attention to the character of the material found on Section C.

So far as our cuts show the material to be excavated is not uniform in character. What we find in one place is no indication as to what the work will be 50 feet away. In a cut half the length of our section and 20 feet deep we have found every substance that is usually embraced in a classification for excavation on public works. Most of the material so far encountered can be excavated by a good steam shovel, without blasting, in reasonable quantities, but there are ridges or beds of a conglomerate consisting of boulders embedded in a blue cement that can not be removed by earth methods and at earth prices. This particular material can neither be picked nor ploughed, and the strongest steam shovel made will not remove it without blasting. We find it much more difficult to drill and requiring more powder to displace than lime stone rock.

Your Chief Engineer was on our work during the month of February when our steam shovel was gnawing at one of these hard ledges, and can fully explain to you the difficult character of the work.

We have during the last month made considerable outlay for additional machinery to be put on the work at once, and are prepared to push it vigorously, removing at least half a million yards by November 1st if the material is of such a character that it can be handled at earth prices.

We desire to have you give this matter a careful consideration, and determine in the event that this conglomerate is found in large quantities on our contract sec-

tion, what arrangements would be just and equitable in the matter so far as the District is concerned, and at the same time enable us to prosecute the work in an effective manner.

Most respectfully yours,

THE WESTERN DREDGING & IMP'T CO.

(Signed) By J. O. WRIGHT,

*General Manager."*

CLAIM FOR HOSPITAL DUES ON SECTION 1.

The Clerk presented a communication, accompanied by one enclosure, from Dr. Nicholas Re, making claim for unpaid hospital dues said to have been collected by Alfred Harlev on the river diversion work on Section 1; and the communication was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the communication be ordered printed, and, with enclosure, referred to the Committee on Health and Public Order.

The motion prevailed unanimously, and the communication was ordered printed, and, with enclosure, so referred.

The following is

THE COMMUNICATION:

"CHICAGO, March 28, 1894.

*To the President and Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Herewith I present a bill for unpaid hospital dues collected by Alfred Harlev while acting as an agent of the Sanitary District in performing work done on the river diversion. Please take such action in this matter as will insure the speedy payment of the above bill, and oblige,

Yours respectfully,

(Signed) DR. NICHOLAS RE."

[Enclosure.]

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Russell, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES,

—OF THE—

SANITARY DISTRICT OF CHICAGO.

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APRIL 11, 1894.

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**OFFICIAL RECORD.**

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

**REGULAR MEETING.**

The two hundred and seventeenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, April 11, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9) members, were present.

**MINUTES.**

The minutes of the regular meeting

held April 4, 1894, were approved as printed, on motion of Mr. Eckhart, seconded by Mr. Boldenweck.

**VOUCHERS.**

The Clerk presented the following vouchers:

**ENGINEERING DEPARTMENT.**

Cameron, Amberg & Co. (stationery).....	\$134 63
Cameron, Amberg & Co. (stationery).....	19 40
Jacobs, Coles & Co. (stationery).....	10 70
A. C. McClurg & Co. (stationery).....	3 42
Pettibone, Wells & Co. (stationery).....	1 20
A. H. Abbott & Co. (drafting material)...	20 00
Keuffel & Esser Co. (drafting material)...	34 55
F. Mayer & Co. (blue prints).....	188 11



Buff & Berger, (transit)	\$185 45
Seelig & Kandler, (gauge boards, etc.)	53 50
R. W. Goodwillie Box Co. (stakes).....	40 00
Morrisson, Plummer & Co. (chamois skins)	3 60
Carson, Pirie, Scott & Co. (signal cloth)....	4 99
Tobey Furniture Co. (furniture).....	146 80
Robert H. Cowdrey, (postage stamps)....	60 00
Henry Fittge, (stoves, etc.).....	60 00
Chicago Photo Eng. Co. (cuts for history)....	18 60
John McCaffery, (rent, Brighton Park).....	25 00
John T. Allison, (rent, Summit).....	20 00
A. M. Munson, (rent, Mt. Forest).....	20 00
O. W. Moon, (rent, Lockport).....	20 00
H. S. Norton, (rent, Lemont).....	18 00
H. S. Norton, (rent, vault for six months)	2 50
Chicago Towel Supply Co. (toweling).....	5 40
T. E. Welbourn, (hard- ware).....	3 90
T. Ryan, (coal).....	15 00
J. M. Abbitt, (coal, etc.).....	41 58
Jas. D. Welsh, (moving safe).....	5 00
U. W. Weston, (travel- ing).....	57 60
Alex. E. Kastl, (travel- ing).....	25 96
H. B. Alexander, (travel- ing).....	13 49
Hiram A. Miller, (travel- ing).....	13 13
Hiram A. Miller, (travel- ing).....	17 48
Chas. L. Harrison, (traveling).....	17 75
A. C. Schrader, (travel- ing).....	38 04
A. C. Schrader, (travel- ing).....	67 65
F. G. Ewald, (travel- ing).....	15 48
	<hr/> \$1,427 86

## LAW DEPARTMENT.

Thos. Hennebry, Sher- iff Will Co. (service)	\$ 27 80
Frank Vander Bogart, Clerk Circuit Court, Will Co. (service)...	5 00
Orrin N. Carter (ex- pense).....	30 67
	<hr/> \$ 63 47

## GENERAL ACCOUNT.

Svenska Kuriren, (ad- vertising Sections 1, N and O).....	\$ 13 50
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Daily Svornost. (ad- vertising Sections 1, N and O).....	\$ 9 00
Chicago Telephone Co. (telephone).....	31 60
Thos. F. Judge, (pay- roll and sundry ex- pense).....	466 38
	<hr/> \$ 520 48

## POLICE DEPARTMENT.

Foley & Bresnigham, (five wells, final esti- mate).....	\$236 10
T. Ryan, (coal).....	28 13
J. H. Tedens & Co. (coal).....	68 49
W. H. Shields, (coal)...	25 13
John G. Bodenschatz, (paint, etc.).....	20 06
Thos. Ludwig, (horse- shoeing).....	20 70
Edward Williams, (ex- pense).....	75 42
	<hr/> \$ 474 03
Grand total.....	<hr/> \$2,485 84

Mr. Russell, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITION.

The Clerk presented the following requisition:

No. 923, Police Department, (supplies for Hyman ave. Station)..\$340 55

Mr. Boldenweck, seconded by Mr. Russell, moved that Requisition No. 923, for the Police Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 923, for the Police Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the

number of persons in the employ of the District for the week ending April 7, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

“CHICAGO, April 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending April 7, 1894, as the same have been reported to me:

Engineering Department.....	109
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	7
Police Department.....	37
Total employes.....	158

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of March, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

“CHICAGO, April 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to report herewith that the total amount expended on account of and charged to the Clerical Department during the month of March, 1894, was \$16.50, divided as follows:

Stationery.....	\$12.00
General expenses.....	4 50
Total.....	\$16.50

There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$950.

The total amount expended and charged to the General Account, during

the month of March, 1894, was \$639.33, divided as follows:

Advertising.....	\$251.00
Printing and Stationery.....	185 83
Janitor Service.....	80.00
General expenses.....	122.50
Total.....	\$639.33

There are no outstanding liabilities against the General Account, and the expenses for the present month will be under \$6,000.

During the month of March, 1894, there were warrants authorized and drawn against the various accounts as follows:

Engineering Department.....	\$ 3,369.90
Clerical Department.....	16.50
Law Department.....	490.73
General Account.....	639.33
Engineering Department (Construction Account).....	214,469.76
Law Department (Land Acct).....	260,457.00
Police Department.....	20.28

Total.....\$479,463.50

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of March, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

“CHICAGO, April 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith the monthly report for March, 1894. The total amount paid out by this Department during said month is as follows:

General Expenses.

Right of way.....	\$ 253 48
Legal services.....	100 00
Printing and stationery.....	123 25
Sundries.....	14 00
Total.....	\$490 73

Land Account.

Right of way (for which deeds were delivered).....	\$150,404 00
Total.....	\$150,894 73

The Supreme Court, on motion for re-

hearing in the suit of the District v. Tedens et al., modified its opinion but denied the motion, and the case stands remanded for a new trial. The case pertains to land on Sag Island.

The purchase of a large tract of land in Canalport, at the easterly terminus of the Main Channel, has been concluded during the month. A suit for the only remaining tract in our right of way in Cook County, not heretofore included in condemnation proceedings, has been begun, and opinions and other data are being obtained preparatory to negotiations in regard to railroad crossings.

This department has devoted much time during the month to the condition of affairs on Sections five (5), six (6) and seven (7). A conclusion has been reached in relation to Section five (5), and a supplementary agreement entered into covering the necessary changes in the method of carrying on the work on that section and also settling the questions resulting from the land slide thereon.

The department will be occupied during the present month with matters pertaining to Sections six (6) and seven (7), to the trial of the suits of District v. Cook et al., and of the District v. Tedens et al., and with routine work.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
*Attorney.*

#### POWERS OF ASSISTANT ENGINEERS.

The Clerk presented a report from the Chief Engineer, transmitting form of order with reference to the powers of Assistant Engineers; and the report and order were read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report, with accompanying order, be adopted, concurred in, ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT, WITH ENCLOSURE:

“CHICAGO, April 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I present herewith a form of order which I wish to issue in furtherance of what I believe to be the interests of this District; but before sending it out I wish to know whether I have your ac-

quiescence and support in the policy outlined.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*”

(Enclosure.)

*Form of Order Proposed to be Issued by the Chief Engineer.*

“The interests of the work and proper discipline require that the employes of the Engineering Department, upon each of the several divisions, should be strictly answerable to the Engineers in charge of the respective divisions to which they are assigned. Each Assistant Engineer will be held responsible for the conduct and efficiency of his men, and he may and must exercise such authority as will insure the results expected of him, treating any infringement of discipline or neglect of duty in such manner as will prevent a repetition of the offense. If, however, the offense is repeated it will cause the immediate and irrevocable discharge of the offender.

The hours of working will be controlled by the Assistant Engineer. If the exigencies of the work require long hours those exigencies must be met. This District pays its employes liberally and they should give it loyal service or else yield their places to men who will.”

STRENGTHENING LEVEES ON SECTIONS E AND I, AND RAISING OF CALUMET TERMINAL ROAD-BED.

The Clerk presented two reports from the Chief Engineer, with reference to the strengthening of the levees on Sections E and I, and the raising of the road bed of the Chicago and Calumet Terminal Railway Company, recommending appropriations of \$1500, \$1000 and \$1600 respectively for said purposes, as set forth in the reports; and the reports were read.

In connection with the reports, Mr. Boldenweck presented an order authorizing and directing the Chief Engineer to carry out the recommendations made in the reports, as provided in the order, and appropriating the amounts asked for; and the order was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the reports be adopted, ordered printed and placed on file, the recommendations made therein concurred in, the order adopted, and the Chief Engineer authorized and directed in accordance with the order.

On roll-call the vote stood: Yeas—



Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the reports adopted, ordered printed and placed on file, the recommendations made therein concurred in, the order adopted, and the Chief Engineer authorized and directed in accordance with the order.

The following are

#### THE REPORTS:

“CHICAGO, April 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Pursuant to your order of March 28th, page 1839 of Proceedings, I have to report as follows:

On Section E the contractors have built a levee which I consider inadequate as a protection against future floods. I have so advised the contractors in a personal interview, and also by letter, urging them to make the levee of sufficient size to insure its safety. Should they fail to do this within a reasonable time, I propose having it done and charging the resulting cost to the contract for that section, and I ask that you make an appropriation for this work of \$1,500.00 subject to my order if I should have to take the extreme measure suggested.

It will be necessary to raise a portion of the Chicago & Calumet Terminal Railway road bed to a height of 20 feet above datum as further security against floods. This will be so much done on the permanent work which we will have to do in raising that road. For this work I ask an appropriation of \$1,000.00.

Further work must be done on the bank of the Illinois and Michigan Canal in bringing it up to height and volume sufficient to resist probable floods. For this work the authority given November 15, 1893, is still in force, which is also true of the authority given for the building of the Willow Springs road at the same time.

The levee on Section No. 1 must be raised and strengthened, and I ask an appropriation of \$1,000.00 for meeting the cost of that work.

Sections 2 and 3 are amply protected against flooding from the river side. Section No. 4 is also fully protected, barring a stretch of about 100 feet at the westerly end of the levee which was built of poor material and needs rein-

forcement. This I will arrange with the Qualey Construction Company to make good while they are working adjacent to it on Section No. 5. The contractors on Section 5 are now laying tracks preparatory to hauling material on to the levee on that section, which they will complete and rip-rap as provided in their supplemental contract.

Section No. 6 is, I think, safe for the present season, but the levee should be rip-rapped as soon as possible.

Sections No. 7, 8 and 9, from the advices I have, are well protected.

On No. 10 the outer levee will be completed under the order of November 15, 1893. Work will be resumed there at once.

The question of rip rapping levees on Sections 11 and 12 is in your hands for adjustment.

The foregoing statements give you facts in relation to levee protection.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

“CHICAGO, April 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In my communication of the 10th inst. to you I recommended raising the Calumet Terminal roadbed to a height of 20 feet above datum. After further consideration it seems to me most desirable to raise the bridge of said railway across the Desplaines River, making it two feet higher than it now is. My reason for this further recommendation is that in the recent flood the water came to within two inches of the tops of the stone piers; and but for the break in the I. & M. Canal bank it would have been upon the bridge chords. As this last was not an extreme flood, serious consequences might be looked for at this point if extreme high water should occur before the bridge is raised.

I think, therefore, that prudence dictates the further work which I propose herein, which would involve a cost of \$600 00 in addition to the \$1,000 already asked for.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

The following is

THE ORDER:

"WHEREAS, It has been shown to this Board by its Chief Engineer in the formal communications which have just been read that certain work must be done to secure the works of this District from damage by floods which may reasonably be looked for; therefore, be it

*Ordered*, That the Chief Engineer be authorized and directed, in the event of failure on the part of contractors for Section E within ten days to make such a levee upon said Section E as in the judgment of said Engineer is good and sufficient; to build said levee in such manner as he shall deem best at a cost not exceeding \$1,500.00, which said cost shall be charged against the contractors for said Section E; and it is further

*Ordered*, That the Chief Engineer is authorized and directed to cause the grade of the Calumet Terminal track to be raised to a height of twenty feet above datum where the same intersects the levees on Sections D and E, and to raise the bridge of said railway across the Des-plaines River to a height of two feet above its present level, and to make the approaches thereto upon a grade no heavier than one per cent, all of which work must be done at a cost not exceeding \$1,600.00; and, furthermore, be it

*Ordered*, That the Chief Engineer is authorized and directed to cause the levees protecting Section No. 1 to be so raised and strengthened as to secure that section against any probable damage from floods, at a cost not exceeding \$1,000.00."

REPORT ON CONSTRUCTION OF EMBANKMENT ON SECTIONS 11 AND 12.

Mr Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a communication from Messrs. Mason, Hoge and Company, Contractors for Sections 11 and 12 of the Main Channel, sent in answer to a communication from the Chief Engineer, directing the construction of a certain embankment levee on said sections, said communication having been presented and referred to that Committee at the meeting held April 4, 1894, (Page 1853 of the proceedings); and the report was read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed, and with the enclosure, placed

on file, and the recommendations made with report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.

The following is

THE REPORT:

"CHICAGO, April 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the completion of the embankment on Sections 11 and 12, which Mason, Hoge & Company contend is not required under their contract by their letter of March 28, 1894, presented to the Board and referred to the Joint Committee on Engineering and Finance at the meeting held April 4, 1894 (page 1853 of the Proceedings), your Committee reports as follows:

It appears that the original specifications and plans provided for an embankment west of the Channel and adjacent to the river diversion from the county line or a point opposite Sag to the end of Contract Section 14, and that this was definitely located by the Board on June 29, 1892, and said additional matters then adopted were made a part of the several contracts. This embankment was to be made of proper dimensions for a double track railway and was to be used for that purpose in certain contingencies. Its location made obvious another use, demanded for the proper protection of the works of the District, viz., that of a levee for the control of flood waters.

It appears, however, that the Engineering Department did not construe the contract as requiring a water-tight bank, nor was the the bank given any definite proportions at any point, further than a definite grade where the material was available, and it also appears from the communication of Mason, Hoge & Company that they were led to infer that the embankment would not be required. These matters did not come to the attention of the Board until late in 1893, when a large proportion of the work along the new river had been done.

The Board has since insisted on being fully advised in regard to the construing



of contracts in advance of actual action by the Chief Engineer. So far as the grade of the bank has been changed, or the same required to be made water-tight, or material had to be moved a second time in forming the bank, the Board has felt constrained to accept the situation, though regarding it as a grievous error, and pay for the extra work required. It was in conformity with this conclusion that the Board, on November 15, 1893, ordered a water-tight core or filling on Sections 11 and 12, as a contribution to the cost of the embankment, the remainder of the bank to be completed at the cost of the contractors.

This core or levee has not been protected by rip-rap, has been seriously washed, and has been breached at one place. Its immediate protection is required, and the full bank should be completed as soon as practicable. The Committee concludes that Mason, Hoge & Company are required to do this work, and should proceed forthwith with the same.

The Committee cannot concede that any understanding with the former Chief Engineer or any inference from his statements, except as they are made in writing and by authority of the Board, can operate to abrogate any feature of their contracts.

We therefore recommend that Mason, Hoge & Company be notified to at once proceed with the work under the direction of the Chief Engineer, first securing the core or filling so as to answer the purpose of a levee, and that in the event of their failing to do so promptly, that the Chief Engineer take steps to fully secure the work already done, at the cost of Mason, Hoge & Company.

The communication of Mason, Hoge & Company is returned herewith for filing.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.

B. A. ECKHART,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,  
THOMAS KELLY,  
W. H. RUSSELL,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure.)

REPORT ON CLAIM FOR HOSPITAL DUES  
ON SECTION 1.

Mr. Gilmore, Chairman, presented a

report (with one enclosure) from the Committee on Health and Public Order, with reference to and accompanied by a communication, with one enclosure, from Dr. Nichola Re, being a claim for unpaid hospital dues said to have been collected by Alfred Harlev on the river diversion work on Section 1, which communication, with enclosure, was presented and referred to that Committee at the meeting held April 4, 1894, (page 1855 of the proceedings); and the report was read.

Mr. Gilmore, seconded by Mr. Altpeter, moved that the report be adopted, ordered printed, and, with all enclosures, placed on file, the recommendations made in the report concurred in, and the Chief Engineer authorized and directed in accordance with the same.

On roll-call, the vote stood: Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with all enclosures, placed on file, the recommendations made in the report concurred in, and the Chief Engineer authorized and directed in accordance with the same.

The following is

#### THE REPORT:

"CHICAGO, April 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the communication from Dr. Nichola Re, transmitting bill for unpaid hospital dues said to have been collected by Alfred Harlev while acting as Agent of the District on the special river diversion work, presented to the Board and referred to the Committee on Health and Public Order at the meeting held April 4, 1894, (page 1855 of the Proceedings) your Committee have considered the same, and report as follows:

We find upon investigation that while acting as the Agent of the District, Alfred Harlev collected two (2) cents per working day from each workman employed upon the river diversion and levees on Section 1, from October 15 to the latter part of November, a total amount of \$184.84. We find that the bill for hospital dues, as presented by Dr. Re, is correct, and that there is still due him the sum of \$99.60.

Your Committee recommend that the



Chief Engineer of this District be authorized and directed to pay, from his emergency fund, Dr. Re the amount of said bill, (\$99.60), and that the sum of \$184.84, being the whole amount collected for hospital dues by Alfred Harlev be deducted from any money that may be now due or that may hereafter become due to said Harlev.

The communication and bill of Dr. Re, together with a report on same, are herewith returned.

Respectfully submitted,

(Signed) A. P. GILMORE,  
*Chairman.*

JOHN J. ALTPETER,  
*Committee of Health and Public Order."*

(Two (2) enclosures).

ORDER FOR SIGNING OF LEASE FOR PRESENT OFFICES.

Mr. Eckhart presented an order, authorizing and directing the President and Clerk to execute lease, on behalf of the District, for the present offices in the Rialto Building, as provided in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Kelly, moved the adoption of the order.

On roll call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the President and Clerk authorized and directed to execute the lease in accordance with the order.

The following is

THE ORDER:

"Ordered, That the President and Clerk

be and they are hereby authorized and directed to execute on the part of the District a lease, as prepared by the Attorney, of the offices in the Rialto building now occupied by it for a term extending from May 1st, 1894, to April 30th, 1895."

ADJOURNMENT TO SPECIAL TIME.

Mr. Eckhart, seconded by Mr. Kelly, moved that when the Board adjourn, it do adjourn to meet Friday, April 13, 1894, at 1:30 o'clock P. M.

The motion prevailed unanimously, and it was so ordered.

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned to meet Friday, April 13, 1894, at 1:30 o'clock P. M., pursuant to motion.

THOS. F. JUDGE,  
*Clerk.*

ADJOURNED MEETING.

The adjourned session of the two hundred and seventeenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Friday, April 13, 1894, at 1:30 o'clock P. M., pursuant to motion.

On roll-call there were no members of the Board present. At 2 o'clock P. M. there being still no quorum, in pursuance of the rules, the Board stood adjourned.

THOS. F. JUDGE,  
*Clerk.*

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES,

—OF THE—

SANITARY DISTRICT OF CHICAGO.

APRIL 18 AND 20, 1894.

OFFICIAL RECORD.

(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)

REGULAR MEETING.

The two hundred and eighteenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, April 18, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly and Wenter—six (6), and subsequently Messrs. Russell, Gilmore and Prendergast, making a total of nine (9) members, were present.

MINUTES.

The minutes of the regular meeting

held April 11, 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Eckhart.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

<i>Construction Account—</i>	
McArthur Bros. (Sec. 2, April 16, 1894).....	\$ 9,922 50
Gilman & Co. (Sec. 3, April 16, 1894).....	3,087 00
McArthur Bros. (Sec. 4, April 16, 1894).....	4,977 78
Chas. Vivian & Co. (Sec. 6, April 16, 1894)	5,302 00
Agnew & Co. (Sec. 7, April 16, 1894).....	6,492 50
Mason, Hoge, King & Co. (Sec. 8, April 16, 1894).....	7,828 84
Halvorson, Richards & Co. (Sec. 9, April 16, 1894).....	6,123 16

E. D. Smith & Co. (Sec. 10, April 16, 1894)....	\$15,750 00
Mason, Hoge & Co. (Sec. 11, April 16, 1894).....	8,459 94
Mason, Hoge & Co., (Sec. 12, April 16, 1894).....	6,240 94
Mason, Hoge & Co., (Sec. 13, April 16, 1894).....	11,773 12
Smith & Eastman (Sec. 14, April 16, 1894).....	6,419 70
Heldmaier & Neu, (Sec. A, April 16, 1894)....	24,599 53
Western Dredging & Improvement Co. (Sec. C, April 16, 1894).....	2,056 25
E. D. Smith & Co. (Sec. D, April 16, 1894)....	6,939 84
Ricker, Lee & Co. (Sec. F, April 16, 1894)....	1,870 31
Gahan & Byrne. (Sec. G, April 16, 1894)....	661 50
Christie & Lowe (Sec. I, April 15, 1894)....	2,150 97
Christie & Lowe (Sec. K, April 15, 1894)....	315 00
The Heidenreich Co. (Sec. L, April 15, 1894).....	1,303 15
The Heidenreich Co. (Sec. M, April 15, 1894).....	375 95
Stephenson & Keller (Sec. 1, repairs, old channel levee).....	10 50
Isham Randolph (Sec. 1, strengthening levee).....	673 50
Heldmaier & Neu, (Sec. 1, Willow Springs Road levee).....	710 27
Heldmaier & Neu (Sec. A, extra work, break in levee).....	46 20
Western Stone Co. (Sec. E, repairing break in canal banks).....	1,659 00
John Welbourne (Sec. E, repairing break in canal banks).....	70 84
J. J. McCaughey (Sec. E, repairing break in canal banks).....	258 30
	<u>\$136,078 59</u>

## ENGINEERING DEPARTMENT.

The Consumers' Pure Ice Co. (water).....	\$ 15 50
E. R. Shnable, (traveling).....	11 03
Robert H. Cowdrey (float-timers, etc)...	17 10
Robert H. Cowdrey (expense).....	24 13
	<u>\$ 67 76</u>

## LAW DEPARTMENT.

Western Union Telegraph Co. (telegraph service).....	\$ 1 02
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## GENERAL ACCOUNT.

Chicago Edison Co. (electric lighting)....	\$ 3 14
The Chicago Deposit Vault Co., (janitor service, March, 1894).....	80 00
	<u>\$ 83 14</u>
Grand total.....	<u>\$136,230 51</u>

Mr. Boldenweck, seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 396, Engineering Department, (sundries).....	\$ 66 25
No. 397, Engineering Department, (steel tape).....	25 00
No. 398, Engineering Department, (stationery).....	3 00
No. 399, Engineering Department, (printing).....	115 00
Total .....	<u>\$204 25</u>

Mr. Boldenweck, seconded by Mr. Kelly, moved that Requisitions Nos. 396, to 399, inclusive, for the Engineering Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and Requisitions Nos. 396 to 399, inclusive, for the Engineering Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending April 14, 1894.

The same was read, and, by unani-



mous consent, was ordered printed and placed on file.

The following is

THE REPORT:

“CHICAGO, April 18, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending April 14, 1894, as the same have been reported to me:

Engineering Department.....	110
Clerical Department.....	4
Treasury Department.....	1
Law Department....	7
Police Department.....	38
Total employes.....	160

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

PURCHASE OF CLAY EXCAVATED FROM MAIN CHANNEL.

The Clerk presented a communication from Frederick Krietenstein, with reference to the purchase from the District of clay excavated from the Main Channel.

The communication was read, and, by unanimous consent, was referred to the Joint Committee on Engineering and Finance.

The following is

THE COMMUNICATION:

“CHICAGO, April 10, 1894.

*To the Honorable, the Board of Sanitary Commissioners:*

GENTLEMEN—I am contemplating mak-

ing brick this year, and as I have not located my yard yet, I wish you would inform me in what way or manner the clay taken out of the new drainage canal will be disposed of. I would like to locate my yard somewhere along the line of the new canal, between Robey street, on the east and Kedzie avenue on the west. Would like to be informed whether there are not a few acres left over your 800 feet canal reserve, from which I could operate or make brick on, using the material for making brick from the new canal. If said land could be had, what the rent would be and what said clay would cost per thousand brick.

I wish your Honorable Board would inform me at your earliest convenience, and oblige,

Yours truly,

Signed) FREDERICK KRIETENSTEIN,

No. 14 Union Place, south of Twenty-second street.”

PRESENTATION OF BIDS ON SECTIONS 1, N AND O OF THE MAIN CHANNEL.

The President then announced that in conformity with the advertisement of February 16, 1894, published for sixty (60) days, as required by the Sanitary District Act, inviting proposals for the work of excavating Section 1 and Sections N and O of the Main Channel, that the Board would now proceed to open the bids received in response to the same.

The Clerk then presented and opened bids as shown by the following

### SCHEDULE OF BIDS:

No. of Bids.	NAME OF BIDDER.	Sections Bid On.	Checks Deposited.
1	Brodhead & Hickey, Fairview, N. J.....	1	\$ 5,000
2	Brodhead & Hickey, Fairview, N. J.....	O	5,000
3	Bradbury & Lowrie, Denver, Colo.....	N and O	10,000
4	John McKechney & Co., Chicago, Ill.....	1	5,000
5	Andrew Onderdonk, Chicago, Ill.....	1	5,000
6	Ryan & McDonald Construction Company, Baltimore, Md.....	1	5,000
7	Ryan & McDonald Construction Company, Baltimore, Md.....	N	5,000
8	E. D. Smith & Co., Romeoville, Ill.....	1	5,000
9	The B. B. Frost Company, Columbus, Ohio.....	1	5,000
10	Fruin-Bambrick Construction Company, St. Louis, Mo.....	1	5,000
11	Fruin-Bambrick Construction Company, St. Louis, Mo.....	N	5,000
12	Mallory, Cushing & Co., Omaha, Neb.....	1	5,000
13	Mallory, Cushing & Co., Omaha, Neb.....	N	5,000
14	Loss & Co., Chicago, Ill.....	1	5,000
15	Hayes Brothers, Chicago, Ill.....	N and O	10,000
16	McMahon & Montgomery Company, Chicago, Ill.....	O	5,000
17	Fitz Simons & Connell Company, Chicago, Ill.....	N	5,000
18	Griffiths & McDermott, Chicago, Ill.....	1	5,000
19	Griffiths & McDermott, Chicago, Ill.....	N and O	10,000
20	F. J. McCain, Chicago, Ill.....	1	5,000
21	F. J. McCain, Chicago, Ill.....	N and O	10,000
22	Mason, Hoge & Co., Romeoville, Ill.....	1	5,000
23	Green's Dredging Company, Chicago, Ill.....	O	5,000
24	May & Purington Co., Chicago, Ill.....	N and O	10,000
25	May & Purington Co., Chicago, Ill.....	1	5,000
26	Johnson & Bradley Co., Chicago, Ill.....	1	5,000
27	Monroe, Strang & Lee, New York, N. Y.....	1	5,000
28	Dawson & Tilden, Chicago, Ill.....	1	5,000
29	McArthur Bros. Co., Chicago, Ill.....	1	5,000
30	Hoover & Mason, Kansas City, Mo.....	N	5,000
31	Clement, Hegeman & Co., New York, N. Y.....	N	5,000
32	R. A. Malone & Sons, Lancaster, Pa.....	N	5,000
33	R. A. Malone & Sons, Lancaster, Pa.....	1	5,000
34	Horback & Spangberg, Chicago, Ill.....	N	5,000
35	*McAnrow & Reilly, Chicago, Ill. (Informal).....	N and O	5,000
36	Wm. Dolese, Chicago, Ill.....	N and O	10,000
37	Christie & Lowe & Co., Chicago, Ill.....	1	5,000
38	J. D. Moran Manufacturing and Construction Company..	1	5,000
39	Lydon & Drews, Chicago, Ill.....	N and O	10,000

\*Bid declared informal for insufficiency of deposit.

On the opening of Bid No. 35, of McAnrow & Reilly, Sections N and O were found to be bid upon, but the check enclosed was for \$5,000 instead of \$10,000, as required by the advertisement.

Mr. Boldenweck, seconded by Mr. Kelly, moved that Bid No. 35, of McAnrow & Reilly, be accepted as for Section N.

Mr. Eckhart, seconded by Mr. Kelly, moved to amend by referring Bid No. 35, of McAnrow & Reilly, without action, to the Joint Committee on Engineering and Finance, in connection with other bids.

Mr. Cooley, seconded by Mr. Russell, moved as a substitute that Bid No. 35, of McAnrow & Reilly, be declared informal.

On roll-call, on the substitute, the vote stood: Yeas—Messrs. Altpeter, Cooley, Gilmore, Russell and Wenter—five (5). Nays—Messrs. Boldenweck, Eckhart, Kelly and Prendergast—four (4).

Upon which result the President declared the substitute carried, and Bid No. 35, of McAnrow & Reilly, declared informal.

## THE FOLLOWING ARE THE BIDS IN DETAIL:

## SECTION 1.

## BID NO. 1—BRODHEAD &amp; HICKEY.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 64	\$1 063 984 64
Solid Rock.....	459 724	95	436 737 80
Retaining Wall, dry.....	60,188	3 15	189 592 20
Retaining Wall, in cement.....	60,188	4 00	240,752 00
Additional price, due to overhaul for Material placed in or on Levee east of Willow Springs Road.....			
	150,000	25	37 500 00
Slope Paving.....	*1,154	1 75	2,019 50
With Dry Wall.....	Total .....		\$1,729,834 14
With Cement Wall.....	Total .....		\$1,780,493 94

\*Square yards.

## BID NO. 4—JOHN M'KECHNEY AND CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662 476	\$0 44	\$731,489 44
Solid Rock.....	459,724	73	335 598 52
Retaining Wall, dry.....	60,188	1 75	105 329 00
Retaining Wall, in cement.....	60,188	3 42	205,842 96
Additional price, due to overhaul for Material placed in or on Levee east of Willow Springs Road.....			
	150,000	20	30 000 00
Slope Paving.....	*1,154	1 50	1,731 00
With Dry Wall.....	Total .....		\$1,204,147 96
With Cement Wall .....	Total .....		\$1,304 661 92

\*Square yards.

## BID NO. 5—ANDREW ONDERDONK.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662 476	\$0 53	\$881,112 28
Solid Rock.....	459 724	70	321,806 80
Retaining Wall, dry.....	60,188	1 40	84,263 20
Retaining Wall, in cement.....	60,188	3 00	180,564 00
Additional price, due to overhaul for Material placed in or on Levee east of Willow Springs Road.....			
	150,000	17	25 500 00
Slope Paving.....	*1,154	1 00	1,154 00
With Dry Wall.....	Total .....		\$1,313,836 28
With Cement Wall.....	Total .....		\$1,410,137 08

\*Square yards.



## BID NO. 6—RYAN AND M'DONALD CONSTRUCTION CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 54	\$897,737 04
Solid Rock.....	459,724	84	386,168 16
Retaining Wall, dry.....	60,188	3 00	180,564 00
Retaining Wall, in cement.....	60,188	3 50	210,658 00
Additional price, due to overhaul for Material placed in or on Levee east of Willow Springs Road.....	150,000	10	15,000 00
Slope Paving.....	*1,154	1 50	1,731 00
With Dry Wall.....	Total.....		\$1,481,200 20
With Cement Wall.....	Total.....		\$1,511,294 20

\*Square yards.

## BID NO. 8—E. D. SMITH &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662 476	\$0 60	\$997,485 60
Solid Rock.....	459,724	1 00	459,724 00
Retaining Wall, dry.....	60,188	3 00	180,564 00
Retaining Wall, in cement.....	60,188	4 50	270,846 00
Additional price, due to overhaul for Material placed in or on Levee east of Willow Springs Road.....	150,000	25	37,500 00
Slope Paving.....	*1,154	1 50	1,731 00
With Dry Wall.....	Total.....		\$1 677,004 60
With Cement Wall.....	Total.....		\$1,767,286 60

\*Square yards.

## BID NO. 9—THE B. B. FROST COMPANY.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 60	\$997,485 60
Solid Rock.....	459,724	90	413,751 60
Retaining Wall, dry.....	60,188	2 00	120,376 00
Retaining Wall, in cement.....	60,188	3 00	180,564 00
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150 000	½ c. per 100 ft.	.....
Slope Paving.....	*1,154	1 00	1,154 00
With Dry Wall.....	Total.....		.....
With Cement Wall.....	Total.....		.....

\*Square Yards.

## BID NO. 10—FRUIN-BAMBRICK CONSTRUCTION CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 65	\$1,080,609 40
Solid Rock.....	459,724	1 10	505,696 40
Retaining Wall, dry.....	60,188	5 80	349,090 40
Retaining Wall, in cement.....	60,188	5 80	349,090 40
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	20	30,000 00
Slope Paving.....	*1,154	75	865 50
With Dry Wall.....	Total.....		\$1,966,261 70
With Cement Wall.....	Total.....		\$1,966,261 70

\*Square Yards.

## BID NO. 12—MALLORY, CUSHING &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 54	\$897,737 04
Solid Rock.....	459,724	79	363,181 96
Retaining Wall, dry.....	60,188	1 95	117,366 60
Retaining Wall, in cement.....	60,188	2 75	165,517 00
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	15	22,500 00
Slope Paving.....	*1,154	1 00	1,154 00
With Dry Wall.....	Total.....		\$1,401,939 60
With Cement Wall.....	Total.....		\$1,450,090 00

\*Square Yards.

## BID NO. 14—LOSS &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 49	\$814,613 24
Solid Rock.....	459,724	89	409,154 36
Retaining Wall, dry.....	60,188	2 00	120,376 00
Retaining Wall, in cement.....	60,188	3 00	180,564 00
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	18	27,000 00
Slope Paving.....	*1,154	1 00	1,154 00
With Dry Wall.....	Total.....		\$1,372,297 60
With Cement Wall.....	Total.....		\$1,432,485 60

\*Square Yards.

## BID NO. 18—GRIFFITHS &amp; M'DERMOTT.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662 476	\$0 42.9	\$713,202 20
Solid Rock.....	459,724	80	367,779 20
Retaining Wall, dry.....	60,188	1 58	95,097 04
Retaining Wall, in cement.....	60,188	2 90	174,545 20
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	20	30,000 00
Slope Paving.....	*1,154	60	692 40
With Dry Wall.....	Total.....		\$1,296,770 84
With Cement Wall.....	Total.....		\$1,286,219 00

\*Square Yards.

## BID NO. 20—F. J. M'CAIN.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 41	\$681,615 16
Solid Rock.....	459,724	78	358,584 72
Retaining Wall, dry.....	60 188	1 62	97,504 56
Retaining Wall, in cement.....	60,188	2 87	172,739 56
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs road.....	150,000	19	28,500 00
Slope paving.....	*1,154	70	807 80
With Dry Wall.....	Total.....		\$1,167,012 24
With Cement Wall.....	Total.....		\$1,242,247 24

\*Square Yards.

## BID NO. 22—MASON, HOGE &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 45	\$748,114 20
Solid Rock.....	459,724	81	372,376 44
Retaining Wall, dry.....	60,188	2 38	143,247 44
Retaining Wall, in cement.....	60,188	3 97	238,946 36
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	67 3-5	11,400 00
Slope paving.....	*1,154	75	865 50
With Dry Wall.....	Total.....		\$1,276,003 58
With Cement Wall.....	Total.....		\$1,371,702 50

\*Square Yards.



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## BID NO. 25—MAY &amp; PURINGTON CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 39	\$648 365 64
Solid Rock.....	459,724	77	353,987 48
Retaining Wall, dry.....	60,188	1 60	96,300 80
Retaining Wall, in cement.....	60,188	2 84	170,933 92
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	18	27,000 00
Slope paving.....	*1,154	65	750 10
With Dry Wall.....	Total.....		\$1,126,404 02
With Cement Wall.....	Total.....		\$1 201,037 14

\*Square Yards.

## BID NO. 26—JOHNSON &amp; BRADLEY CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 39½	\$656 678 02
Solid Rock.....	459,724	83	381,570 92
Retaining Wall, dry.....	60,188	2 90	174 545 20
Retaining Wall, in cement.....	60,188	1 50	90,282 00
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	08	12,000 00
Slope paving.....	*1,154	50	577 00
With Dry Wall.....	Total.....		\$1,225,371 14
With Cement Wall.....	Total.....		\$1,141,107 94

\*Square Yards.

## BID NO. 27—MONROE, STRANG &amp; LEE.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 60	\$997,485 60
Solid Rock.....	459,724	60	275,834 40
Retaining Wall, dry.....	60,188	1 75	105 929 00
Retaining Wall, in cement.....	60,188	2 25	135,423 00
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	20	30,000 00
Slope paving.....	*1,154	75	865 50
With Dry Wall.....	Total.....		\$1 409 514 50
With Cement Wall.....	Total.....		\$1,439,608 50

\*Square Yards.

## BID NO. 28—DAWSON &amp; TILDEN.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662 476	\$0 43	\$714 864 68
Solid Rock.....	459 724	88	404 557 12
Retaining Wall, dry.....	60,188	2 00	120 376 00
Retaining Wall, in cement.....	60,188	2 85	171 535 80
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	0 03	4 500 00
Slope Paving.....	*1,154	1 25	1,442 50
With Dry Wall.....	Total.....		\$1,245,740 30
Width Cement Wall.....	Total.....		\$1,296,900 10

\*Square Yards.

BID NO. 29—M<sup>r</sup>ARTHUR BROS. CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 43	\$714 864 68
Solid Rock.....	459 724	80	367 779 20
Retaining Wall, dry.....	60,188	2 00	120 376 00
Retaining Wall, in cement.....	60,188	3 75	225,705 00
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	0 07	10,500 00
Slope Paving.....	*1,154	1 50	1,731 00
With Dry Wall.....	Total.....		\$1 215 250 88
With Cement Wall.....	Total.....		\$1,320,579 88

\*Square Yards.

## BID NO. 33—R. A. MALONE &amp; SONS.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662 476	\$0 56	\$930 986 56
Solid Rock.....	459 725	56	257 445 44
Retaining Wall, dry.....	60,188	1 80	108 338 40
Retaining Wall, in cement.....	60,188	2 80	168 526 40
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150 000	25	37,500 00
Slope Paving.....	*1,154	50	577 00
With Dry Wall.....	Total.....		\$1,334,847 40
With Cement Wall.....	Total.....		\$1,395 035 40

\*Square Yards.

## BID NO. 37—CHRISTIE AND LOWE &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,376	\$0 70	\$1,163,733 20
Solid Rock.....	459 724	70	321,806 80
Retaining Wall, dry.....	60,188	3 50	210,658 00
Retaining Wall, in cement.....	60,188	4 50	270,846 00
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	0 01	1 500 00
Slope Paving.....	*1,154	1 00	1,154 00
With Dry Wall.....	Total.....		\$1,698,852 00
With Cement Wall.....	Total.....		\$1,759,040 00

\*Square Yards.

## BID NO. 38—J. D. MORAN MANUFACTURING AND CONSTRUCTION CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,662,476	\$0 53	\$881,112 28
Solid Rock.....	459,724	75	344 793 00
Retaining Wall, dry.....	60,188	1 75	105,329 00
Retaining Wall, in cement.....	60,188	3 00	180,564 00
Additional price, due to overhaul, for Material placed in or on Levee east of Willow Springs Road.....	150,000	12	18,000 00
Slope Paving.....	*1,154	1 50	1,731 00
With Dry Wall.....	Total.....		\$1,350,965 28
With Cement Wall.....	Total.....		\$1,426 200 28

\*Square Yards.

## SECTIONS N AND O.

## BID NO. 2—BRODHEAD &amp; HICKEY.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
—7— O { Spoiled on Right of Way.....	1 449,377	\$0 35	\$507,281 95
—7a— { Removed from Right of Way.....	1,449,377	0 35	507,281 95



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## BID NO. 3—BRADBURY &amp; LOWRIE.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
N—Spoiled on Right of Way..... -7-	1,103,355	\$0 27½	\$803,422 62
O—Spoiled on Right of Way..... -7-	1,449,377	0 33½	483,125 67

## BID NO. 7—RYAN &amp; M'DONALD CONSTRUCTION COMPANY.

DISPOSITION OF MATERIAL	Quantities— Cu. Yds.	Price.	Amount.
N—Spoiled on Right of Way..... -7-	1,103,355	\$0 29	\$319,972 95

## BID NO. 11—FRUIN-BAMBRICK CONSTRUCTION COMPANY.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
N { Spoiled on Right of Way..... -7- -7a-	1,103,355	\$0 29	\$319,972 95
{ Removed from Right of Way.....	1,103,355	0 29	319,972 95

## BID NO. 13—MALLORY, CUSHING &amp; CO.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
N { Spoiled on Right of Way..... -7- -7a-	1,103,355	\$0 29	\$319,972 95
{ Removed from Right of Way.....	1,103,355	0 29	319,972 95

## BID NO. 15—HAYES BROTHERS.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
N { Spoiled on Right of Way..... -7- -7a-	1,103,355	\$0 26.8	\$295,699 14
{ Removed from Right of Way.....	1,103,355	0 23	253,771 65
O { Spoiled on Right of Way..... -7- -7a-	1,449,377	0 27¾	402,202 12
{ Removed from Right of Way.....	1,449,377	0 23	333,356 71

## BID NO. 16—M'MAHON &amp; MONTGOMERY CO.

DISPOSITION OF MATERIAL.		Quantities— Cu. Yds.	Price.	Amount.
O {	—7— Spoiled on Right of Way.....	1,449,377	\$0 28	\$405,825 56
	—7a— Removed from Right of Way.....	1,449,377	0 23	333,356 71

## BID NO. 17—FITZ-SIMONS &amp; CONNELL CO.

DISPOSITION OF MATERIAL.		Quantities— Cu. Yds.	Price.	Amount.
N {	—7— Spoiled on Right of Way.....	1,103,355	\$0 28	\$308,939 40
	—7a— Removed from Right of Way.....	1,103,355	0 25	275,838 75

## BID NO. 19—GRIFFITHS &amp; M'DERMOTT.

DISPOSITION OF MATERIAL.		Quantities— Cu. Yds.	Price.	Amount.
N—	—7— Spoiled on Right of Way.....	1,103,355	\$0 22.8	\$251,564 94
O—	—7— Spoiled on Right of Way.....	1,449,377	0 22.8	330,457 96

## BID NO. 21—F. J. M'CAIN.

DISPOSITION OF MATERIAL.		Quantities— Cu. Yds.	Price.	Amount.
N—	—7— Spoiled on Right of Way.....	1,103,355	\$0 20.9	\$230,601 19
O—	—7— Spoiled on Right of Way.....	1,449,377	0 20.9	302,919 80

## BID NO. 23—GREEN'S DREDGING CO.

DISPOSITION OF MATERIAL.		Quantities— Cu. Yds.	Price.	Amount.
O {	—7— Spoiled on Right of Way*.....	1,449,377	\$0 24	\$347,850 48
	—7a— Removed from Right of Way.....	1,449,377	19 9-10	288,426 02

\*Such material as may be required for levee or road bed.

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## BID NO. 24—MAY &amp; PURINGTON CO.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
N—Spoiled on Right of Way..... —7—	1,103,355	\$0 19	\$ .09,687 45
O—Spoiled on Right of Way..... —7—	1,449,377	19	275,381 63

## BID NO. 30—HOOVER &amp; MASON.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
N { Spoiled on Right of Way..... —7—	1,103,355	\$0 24¾	\$273,080 36
{ Removed from Right of Way..... —7a—	1,103,355	24¾	273,080 36

## BID NO. 31—CLEMENT, HEGEMAN &amp; CO.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
N { Spoiled on Right of Way..... —7—	1 103,355	\$0 24	\$264,805 20
{ Removed from Right of Way..... —7a—	1,103,355	24	264 805 20

## BID NO. 32—R. A. MALONE &amp; SONS.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
N { Spoiled on Right of Way..... —7—	1,103,355	\$0 24	\$264,805 20
{ Removed from Right of Way..... —7a—	1,103,355	24	264,805 20

## BID NO. 34—HORBACK &amp; SPANGBERG.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
N—Spoiled on Right of Way..... —7—	1,103,355	\$0 25	\$275,838 75



## BID NO. 36—WM. DOLESE.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
—7— N—Spoiled on Right of Way.....	1,103 355	\$0 29	\$319,972 95
—7— O—Spoiled on Right of Way.....	1,449.377	35	507,281 95

## BID NO. 39—LYDON &amp; DREWS.

DISPOSITION OF MATERIAL.	Quantities— Cu. Yds.	Price.	Amount.
—7— N—Spoiled on Right of Way.....	1,103,355	\$0 18.45	\$203,569 00
—7— O—Spoiled on Right of Way.....	1,449,377	17.95	260,163 17

BIDS TO BE TABULATED AND REFERRED  
TO JOINT COMMITTEE ON ENGI-  
NEERING AND FINANCE.

Mr. Eckhart, seconded by Mr. Cooley, moved that the bids just received be compiled, summarized and tabulated by the Chief Engineer, incorporated in Proceedings, and the subject matter of the bids be referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and it was so ordered.

## ADJOURNMENT TO SPECIAL TIME.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that when the Board adjourn it do adjourn to meet Friday, April 20, 1894, at 1:30 o'clock P. M.

The motion prevailed unanimously, and it was so ordered.

## ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Kelly, the Board then adjourned to meet Friday, April 20, 1894, at 1:30 o'clock P. M., pursuant to motion.

THOS. F. JUDGE,  
Clerk.

## ADJOURNED MEETING.

The adjourned session of the two hundred and eighteenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Friday, April 20, 1894, at 1:30 o'clock P. M., pursuant to motion.

President Wenter called the Board to order.

On roll call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly and Wenter—seven (7), and subsequently Mr. Russell, making a total of eight (8) members, were present.

TABULATION OF BIDS ON SECTIONS 1, N  
AND O, MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer, showing in detail, as presented at the last meeting, the bids for excavating Section 1 and Sections N and O of the Main Channel, with extensions and a tabulation of the same; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report, with enclosed tables, be ordered printed and placed on file, the subject matter of the bids having already been referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and it was so ordered.

The following is

## THE REPORT, WITH TABLES:

“CHICAGO, April 20, 1894.

*To the Honorable the Trustees of the Sanitary District of Chicago:*

GENTLEMEN: I transmit herewith the following Schedules:

First Schedule, a tabulation of the names of the bidders on Sections No. 1, N and O, whose bids were opened and read before you on April 18th, showing the consecutive order in which the bids were received, and the prices, bid on each of the Sections named, for the several classes of material and subject

to the conditions set forth in the specifications.

Second Schedule, a tabulation of the bids on Section No. 1 in the comparative order of their aggregate amount, progressively from the lowest to the highest aggregate bid. This schedule shows on the left the aggregate amount bid on the basis of dry rubble walls, and on the right the aggregate amount bid on the basis of cement walls.

Third Schedule, a tabulation of the bids on Section N, in the comparative order of their amounts, progressively from the lowest to the highest. This schedule shows on the left the amount bid on the basis of depositing material on the right

of way, and on the right the amount of bid on the basis of removal from the right of way.

Fourth Schedule, a tabulation of the bids on Section O, in the comparative order of their several aggregate amounts, progressively from the lowest to the highest, this schedule shows on the left the amount bid on the basis of depositing the material on the right of way, and on the right the amount of bid on the basis of removal from the right of way.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."  
(Enclosing four (4) tables.)

KEY TO SCHEDULE OF BIDS ON RE-LETTING SECTION 1, AND ON LETTING OF N AND O,  
APRIL 18, 1894.

NAMES OF BIDDERS IN THE ORDER IN WHICH THEIR BIDS WERE RECEIVED.

Bid No.	NAME OF BIDDER.	N		O		1					
		EXCAVATION, PRICE BID.		EXCAVATION, PRICE BID.		PRICE BID.					
		Spilled on Right of Way	Removed from Right of Way	Spilled on Right of Way	Removed from Right of Way	Glacial Drift.	Solid Rock.	Retaining Wall, Dry.	Retaining Wall, in Ce- ment.	Overhaul E. of Willow Springs Rd.	Slope Pav- ing, Sq. Yd.
1	Brodhead & Hickey .....					\$0 64	\$0 95	\$3 15	\$4 00	\$0 25	\$1 75
2	Brodhead & Hickey .....			\$0 35	\$0 35						
3	Bradbury & Lowrie .....	\$0 27½		33½							
4	John McKechney & Co. ....					44	73	1 75	3 42	20	1 50
5	Andrew Onderdonk .....					53	70	1 40	3 00	17	1 00
6	Ryan & McDonald Con. Co. ....					54	84	3 00	3 50	10	1 50
7	Ryan & McDonald Con. Co. ....	29									
8	E. D. Smith & Co. ....					60	1 00	3 00	4 50	25	1 50
9	The B. B. Frost Co. ....					60	90	2 00	3 00	+00½	1 00
10	Fruin-Bambrick Constr. Co. ....					65	1 10	5 80	5 80	20	75
11	Fruin-Bambrick Constr. Co. ....	29	\$0 29			54	79	1 95	2 75	15	1 00
12	Mallory, Cushing & Co. ....										
13	Mallory, Cushing & Co. ....	29	29			49	89	2 00	3 00	18	1 00
14	Loss & Co. ....										
15	Hayes Bros. ....	26 4-5	23	27¾	23						
16	M'Mahon & Montgomery Co. ....			28	23						
17	Fitz Simons & Connell Co. ....	28	25								
18	Griffiths and McDermott. ....					42-9-10	80	1 58	2 90	20	60
19	Griffiths and McDermott. ....	22 4-5		22 4-5							
20	F. J. McCain. ....					41	78	1 62	2 87	19	70
21	F. J. McCain. ....	20 9-10		20 9-10							
22	Mason, Hoge & Co. ....					45	81	2 38	3 97	07 3-5	75
23	Green's Dredging Co. ....			24	19 9-10						
24	May & Purington Co. ....	19		19							
25	May & Purington Co. ....					39	77	1 60	2 84	18	65
26	Johnson & Bradley Co. ....					39½	83	2 90	1 50	08	50
27	Monroe, Strang & Lee. ....					60	60	1 75	2 25	20	75
28	Dawson & Tilden. ....					43	88	2 00	2 85	03	1 25
29	McArthur Bros. Co. ....					43	80	2 00	3 75	07	1 50
30	Hoover & Mason. ....	24¾	24¾								
31	Clement, Hegeman & Co. ....	24	24								
32	R. A. Malone & Sons. ....	24	24								
33	R. A. Malone & Sons. ....					56	56	1 80	2 80	25	50
34	Horback & Spangberg. ....	25									
35	*McAnrow & Reilly. ....										
36	Wm. Dolese. ....	29									
37	Christie & Lowe & Co. ....			35		70	70	3 50	4 50	01	1 00
38	J. D. Moran Manufacturing and Construction Co. ....										
39	Lydon & Drews. ....	18 45-100		17 95-100		53	75	1 75	3 00	12	1 50

\*Declared informal. †Per 100 ft. length.

## BIDS FOR RELETTING SECTION 1—APRIL 18, 1894.

*Table of Bids in Order of Magnitude—Lowest Bid First.*

Bid No.	Order.	BIDDER.	Amount with Dry Wall.
25	1	May & Purington Co.....	\$1,126,404 02
20	2	F. J. McCain.....	1,167,012 24
4	3	John McKechney & Co.....	1,204,147 96
18	4	Griffiths and McDermott.....	1,206,770 84
29	5	McArthur Brothers & Co.....	1,215,250 88
26	6	Johnson & Bradley Co.....	1,225,371 14
28	7	Dawson & Tilden.....	1,245,740 30
22	8	Mason, Hoge & Co.....	1,276,003 58
5	9	Andrew Onderdonk.....	1,313,836 28
33	10	R. A. Malone & Sons.....	1,334,847 40
38	11	J. D. Moran Manufacturing & Construction Co.....	1,350,965 28
14	12	Loss & Co.....	1,372,297 60
12	13	Mallory, Cushing & Co.....	1,401,939 60
27	14	Monroe, Strang & Lee.....	1,409,514 50
6	15	Ryan & McDonald Construction Co.....	1,481,200 20
8	16	E. D. Smith & Co.....	1,677,004 60
37	17	Christie & Lowe & Co.....	1,698,852 00
1	18	Brodhead & Hickey.....	1,729,834 14
10	19	Fruin-Bambrick Construction Co.....	1,966,261 70
* 9		The B. R. Frost Company.....	1,532,767 20

\* This is exclusive of overhaul on which a comparison cannot be made owing to irregularity in bid.

## BIDS FOR RELETTING SECTION 1—APRIL 18, 1894.

*Table of Bids in Order of Magnitude—Lowest Bid First.*

Bid No.	Order.	BIDDER.	Amount with Cement Wall.
26	1	Johnson & Bradley Co.....	\$1,141,107 94
25	2	May & Purington Co.....	1,201,037 14
20	3	F. J. McCain.....	1,242,247 24
18	4	Griffiths and McDermott.....	1,286,219 00
28	5	Dawson & Tilden.....	1,296,900 10
4	6	John McKechney & Co.....	1,304,661 92
29	7	McArthur Brothers & Co.....	1,320,579 88
22	8	Mason, Hoge & Co.....	1,371,702 50
33	9	R. A. Malone & Sons.....	1,395,035 40
5	10	Andrew Onderdonk.....	1,410,137 08
38	11	J. D. Moran Manufacturing & Construction Co.....	1,426,200 28
14	12	Loss & Co.....	1,432,485 60
27	13	Monroe, Strang & Lee.....	1,439,608 50
12	14	Mallory, Cushing & Co.....	1,450,090 00
6	15	Ryan and McDonald Construction Co.....	1,511,294 20
37	16	Christie & Lowe & Co.....	1,759,040 00
8	17	E. D. Smith & Co.....	1,767,286 60
1	18	Brodhead & Hickey.....	1,780,993 94
10	19	Fruin-Bambrick Construction Co.....	1,966,261 70
* 9		The B. B. Frost Company.....	1,592,955 20

\* This is exclusive of overhaul on which a comparison cannot be made owing to irregularity in bid.



ORDER.			SECTION N—1,103,355 CUBIC YARDS.				
Spoiled on Right of Way.	Removed from Right of Way.	Bid No.	BIDDER.	Spoiled on Right of Way.		Removed from Right of Way.	
				Price.	Amount.	Price.	Amount.
1	.....	39	Lydon & Drews.....	\$0 18.45	\$203 569 00	.....	.....
2	.....	24	May & Purington Co.....	19	209,637 45	.....	.....
3	.....	21	F. J. McCain.....	20.9	230,601 19	.....	.....
4	.....	19	Griffiths and McDermott.....	22.8	251,564 94	.....	.....
5	2	31	Clement, Hegeman & Co...	24	264,805 20	\$0 24	\$264.805 20
6	3	32	R. A. Malone & Sons.....	24	264 805 20	0 24	264,805 20
7	4	30	Hoover & Mason.....	24¾	273,080 36	0 24¾	273,080 36
8	.....	34	Horback & Spangberg.....	25	275 838 75	.....	.....
9	1	15	Hayes Bros.....	26.8	295,649 14	0 23	253,771 65
10	.....	3	Bradbury & Lowrie.....	27½	303 422 62	.....	.....
11	5	17	Fitz Simons & Connell Co...	28	308,939 40	6 25	275 838 75
12	.....	7	Ryan and McDonald Con. Co	29	319,972 95	.....	.....
13	6	11	Fruin-Bambrick Con. Co...	29	319,972 95	0 29	319,972 95
14	7	13	Mallory, Cushing & Co.....	29	319,972 95	0 29	319,972 95
15	.....	36	Wm. Dolese.....	29	319,962 95	.....	.....

ORDER.			SECTION O—1,449,377 CUBIC YARDS.					
Spoiled on Right of Way.	Removed from Right of Way.	Bid No.	BIDDER.	Spoiled on Right of Way.		Removed from Right of Way.		
				Price.	Amount.	Price.	Amount.	
1	.....	39	Lydon & Drews.....	\$0 17.95	\$260,163 17	.....	.....	
2	.....	24	May & Purington Co.....	19	275,381 63	.....	.....	
3	.....	21	F. J. McCain.....	20.9	302,919 80	.....	.....	
4	.....	19	Griffiths & McDermott....	22.8	330,457 96	.....	.....	
5	1	23	Green's Dredging Co.....	24	347,850 48	\$0 19.9	\$288,426 02	
6	2	15	Hayes Bros.....	27¾	402,202 12	23	333,356 71	
7	3	16	McMahon & Montgomery Co.....	28	405,825 56	23	333,356 71	
8	.....	3	Bradbury & Lowrie.....	33½	483,125 67	.....	.....	
9	4	2	Brodhead & Hickey.....	35	507,281 95	35	507,281 95	
10	.....	36	Wm. Dolese.....	35	507,281 95	.....	.....	

#### ASSIGNMENT BY AGNEW & COMPANY OF CONTRACTS FOR SECTIONS 6 AND 7.

Mr. Eckhart, for the Joint Committee on Engineering and Finance, presented a report from that Committee, transmitting one communication and four agreements, in duplicate, with stipulations, with reference to the assignment by Agnew & Company of the contracts for Sections 6 and 7 of the Main Channel to Mason, Hoge & Company, and authorizing and directing the President and Clerk to execute the said agreements on behalf of the District, as provided in the report; and the report with agreements and stipulations, was read.

In connection with the report, Mr. Eckhart presented a resolution rescinding the action of the Board, as set forth in the resolution, with reference to the forfeiture of the contracts with Agnew & Company for Sections 6 and 7 of the Main Channel; and the resolution was read.

Mr. Eckhart, seconded by Mr. Kelly, moved the adoption of the resolution.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—Mr. Cooley—one (1).

Upon which result the President declared

the motion carried, the resolution adopted, and the action of the Board, as set forth in the resolution, with reference to the forfeiture of the contracts with Agnew & Company for Sections 6 and 7 of the Main Channel, rescinded.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report, with accompanying agreements and stipulations, be adopted, and with all enclosures placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute said agreements, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—Mr. Cooley—one (1).

Upon which result the President declared the motion carried, the report, with accompanying agreements and stipulations, adopted, and with all enclosures placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreements, on behalf of the District, as provided in the report.

The following is

THE RESOLUTION AND REPORT WITH ASSIGNMENTS AND STIPULATIONS:

“*Resolved*, That the order passed by this Board at a meeting held on the 17th day of March, 1894, declaring forfeited the contract with Agnew & Co. for work on contract Section Six (6), bearing date of the 18th day of July, 1892, with all modifications and supplements thereto, be and the same is hereby rescinded, and that the notice of intention to forfeit their contract for work on contract Section Seven (7), sent by the Clerk per order of March 21, 1894, be and the same is hereby withdrawn.”

—  
“CHICAGO, April 20, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance has had frequent and prolonged sessions for the purpose of considering the questions which have arisen in regard to contract Sections six (6) and seven (7).

On March 17, 1894, your Honorable

Body, pursuant to the terms of the supplemental agreement of February 14, 1894, with Agnew & Co., and the report of the Chief Engineer, declared the contract for said Section (6), with all modifications and supplements thereto, forfeited. (Proceedings, p. 1819).

On March 21, 1894, following a report of the Chief Engineer upon the failure of Agnew & Co. to make the rate of progress required by the supplemental contract of February 14, 1894, your Honorable Body directed the Clerk to serve upon them a notice that in ten days thereafter their contract for said Section seven (7) would be forfeited. (Proceedings, p. 1829).

At the same meeting the Engineer was authorized to keep at work the hydraulic dredge upon Section six (6) in the removal of the muck and soft material overlying the rock. At a subsequent meeting (Proceedings, p. 1844) your Committee was directed to consider necessary changes and stipulations for continuation of work on Section seven (7).

The prosecution of the work on said sections had demonstrated that some minor changes in the specifications would be desirable in reletting the contracts, and the Engineer prepared such specifications.

Meanwhile, propositions were made to the Board, looking to an assignment of the contracts for said sections to contractors of undoubted financial resources, having already demonstrated their ability to handle successfully contracts of this nature.

The situation presented to the Board was one of serious difficulty, and has been considered by your Committee with the care which its importance merited.

On the one hand, should the work for said sections be relet by advertisement upon new bids, it would occasion a delay of from three to four months before work could be resumed thereon, besides the prospect, amounting almost to certainty, that the bids for the work upon one at least of said sections would be higher, thus putting the District to increased cost in addition to the delay, and making it very doubtful whether the work could be accomplished within the term fixed by the original contracts.

On the other hand, the question arose as to whether in any case it were good policy for the District, after a declaration of forfeiture, to rescind its action and consent to an assignment of the contracts, and if so, whether the circum-



stances were such in the present instance as would justify a course which was admittedly exceptional, and should only be taken where the best interests of the District imperatively demanded it.

The considerations in favor of such action are the following:

1. A gain of at least four months of work at the most favorable portion of the year for such work.

2. A certainty that the District will not have to pay an increased price for the work on said sections beyond what the change of specifications in minor particulars will occasion.

3. The prosecution of the work by contractors of known ability and financial responsibility instead of the possibility of new and untried contractors.

4. The settlement on terms favorable to the District of claims of Agnew & Co. for extra work not only on said section, but also on Sections five (5), eight (8) and nine (9).

5. The adoption, as a condition of said assignments, of certain necessary changes in specifications and in methods of doing the work upon said sections.

In view of these considerations the advantages arising to the District from an immediate resumption of work upon said sections consequent upon an assignment of said contracts in the manner proposed are so great as to outweigh any of the disadvantages connected therewith, and to the majority of your Committee seem to demand that this Board, in consideration of the public interests and of the prompt and effective prosecution of the great work entrusted to them, put aside any reluctance they feel at rescinding action once deliberately taken, and at once take such action as in view of all the circumstances the best interests of the District and of the people constituting it demand.

Your Committee therefore recommend action by your Honorable Board as follows:

1. That the declaration of forfeiture of the contract for Section six (6) be rescinded, and the notice of the intention to forfeit the contract for Section seven (7) be withdrawn as per resolution, a form of which is hereto attached.

2. That the assignments of the contracts for said sections, respectively, to Mason, Hoge & Co. be consented to by the District, on the conditions specified

in the forms of assignment and stipulations attached thereto, which are submitted herewith.

3. That the President and Clerk be authorized and directed to execute on the part of the District its consent to the assignment of said respective contracts, and the stipulations aforesaid made with regard to each of same, after the same shall have been executed by the other parties thereto and the bonds therein provided for have been approved by the Board.

4. That in consideration of the waiver of all claims for extra work upon Sections five (5), six (6), seven (7), eight (8) and nine (9), and of the acceptance by Agnew & Co. of the the sum of five thousand (\$5,000) dollars in full payment for their claims for overhaul and putting an earth core in the levee adjacent to the river diversion, upon said Sections eight (8) and nine (9), said claims aggregating more than nineteen thousand (\$19,000) dollars, the Clerk be authorized and directed to pay, upon the voucher of the Engineer, to Agnew & Co., said sum of five thousand (\$5,000) dollars in full payment and satisfaction of all claims whatsoever for extra work upon Sections five (5), six (6) and seven (7), and in full payment and satisfaction for all extra work upon Sections eight (8) and nine (9) and, hat he charge up three thousand (\$3,000) dollars of said amount to Section nine (9), and two thousand (\$2,000) dollars thereof to Section eight (8).

The subject matter of the claim of Agnew & Co., referred on November 22, 1893 (page 1583 of Proceedings), having been disposed of, the letter is returned herewith for filing.

Respectfully submitted,

(Signed) B. A. ECKHART,  
WM. BOLDENWECK,  
THOMAS KELLY,  
JOHN J. ALTPETER,  
W. H. RUSSELL,

*Joint Committee on Engineering and Finance."*

(Enclosing letter and assignments, with stipulations and order.)

ASSIGNMENTS, WITH STIPULATIONS:

(Section 6.)

"Know all men by these presents, That we, Francis Agnew, John P. Agnew and John McGillen, co-partners doing busi-



ness under the firm name and style of Agnew & Co., in consideration of the sum of one dollar (\$1.00) to us in hand paid and of other good and valuable considerations, do hereby sell, assign, transfer and convey to Horatio P. Mason, Charles E. Hoge, John King and Harry B. Hanger, co-partners doing business under the firm name and style of Mason, Hoge & Co., all our right, title and interest in and to a contract entered into by us with the Sanitary District of Chicago and dated the 18th day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the main drainage channel of said Sanitary District of Chicago known as Section six (6), together with the building of all collateral works which by the terms of said contract are included in the same, and also including such modifications of said contract, as have since been agreed upon, and do also hereby sell, assign, transfer and convey to said Mason, Hoge & Co. all our right, title and interest in and to any moneys now due or that may hereafter become due and payable under the terms and conditions of said contract and the modifications thereof, except, however, amount due, not including reserve, on estimate by Engineer of March 21, 1894.

*In witness whereof* we have hereunto set our hands and seals this twentieth (20th) day of April, A. D. 1894," etc.

*"The Sanitary District of Chicago* hereby consents to the assignment by Francis Agnew, John P. Agnew and John McGillen, co-partners doing business under the firm name and style of Agnew & Co., to Horatio P. Mason, Charles E. Hoge, John King and Harry B. Hanger, co-partners doing business under the firm name and style of Mason, Hoge & Co., of their contract with the Sanitary District of Chicago, dated the 18th day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section six (6), together with the building of all collateral works which by the terms of said contract are included in the same, and also including such modifications of said contract as have since been agreed upon, on the condition that said contract and the modifications thereof heretofore entered into by the supplemental agreements of July 5, 1893, and February 14, 1894, be further modified in accordance with the stipulations which are hereto attached and made a part hereof.

*In witness whereof*, The said Sanitary District of Chicago has caused these presents to be signed by its President and attested by its Clerk and its corporate seal to be hereto affixed this twentieth (20th) day of April, 1894," etc.

*"In consideration* of the assignment to Horatio P. Mason, Charles E. Hoge, John King and Harry B. Hanger, co-partners doing business under the firm name and style of Mason, Hoge & Co., by Francis Agnew, John P. Agnew and John McGillen, co-partners doing business under the firm name and style of Agnew & Co., of their contract with the Sanitary District of Chicago of the date of July 18th, 1892, for the excavation of that portion of its main drainage channel known as Section six (6), with the modifications thereof thereafter agreed to by the supplemental agreements between said parties of July 5th, 1893, and February 14th, 1894, and the consent of said Sanitary District of Chicago to such assignment, the parties hereto, to-wit: said Sanitary District of Chicago hereinafter referred to as first party and said Mason, Hoge & Co., hereinafter referred to as second party, hereby covenant and agree that said contract and the modifications thereof aforesaid shall be and the same are hereby further modified in accordance with the stipulations here following, but in all other respects to be and remain in full force and effect.

#### STIPULATIONS.

*First*—Second party shall, where necessary, excavate on the northerly side of the main channel, between the Bracken Bank at or near Station 1026 and the westerly end of said Section six (6), all muck or other soft or unstable material overlying the hard and stable material to a width in excess of the specified width of the rock channel, which excess width shall be equal to four times the depth of the soft or unstable material as measured from its surface to the top of the hard material; on the berm so laid bare they shall deposit broken rock or other suitable material forming an embankment which shall be eight (8) feet or less wide on top, at an elevation of five (5) feet above datum, with the natural side slopes which such material shall assume after being dumped approximately one and one-fourth ( $1\frac{1}{4}$ ) feet horizontal to one (1) foot vertical. As an alternative for the foregoing, if it shall be found practicable and shall be so ordered by

the Engineer, a track shall be laid along-side of the cut on that portion of the work covered by this agreement, and broken rock or other suitable material dumped over the edge and an embankment formed so far as necessary throughout that part of the section west of the Bracken Bank, for the purpose of sustaining the sides of the cut and preventing sliding or subsidence of the same when the section is unwatered; the revetting embankment so formed shall be eight (8) feet or less wide on top with such side slope toward the channel as the material used will naturally assume, approximately one and one-fourth ( $1\frac{1}{4}$ ) feet horizontal to one (1) foot vertical. Should the first party so order, the southerly side of the channel shall receive the same treatment that has been hereinbefore prescribed for the northerly side. For all loose rock or other suitable material deposited in the embankment hereinbefore described and provided for, first party will pay and second party will receive as the full compensation therefor the sum of sixty-five (65) cents per cubic yard, measured in the prism of the embankment, provided no payment for any revetment or its equivalent shall be made except for such work as shall be specifically ordered by the Chief Engineer in writing. It is further understood that the back-filling behind retaining walls provided for in the original contract shall constitute the filling of all space in rear of retaining walls which has been excavated and not filled by the revetment, and all work of back-filling shall be done at the expense of second party. The soft material removed from that portion of the channel west of the Bracken Bank to be deposited not closer than two hundred and thirty (230) feet from the center line of the Main Channel and upon the spoil areas for said section shown upon the map hereto attached marked 'No. 1' and made a part hereof.

The existing contract of March 24, 1894, between Charles Vivian & Co. and first party, by its Engineer, has been transferred to and assumed by second party herein, who will themselves make the payments called for thereunder, and second party shall receive payment for all excavation made on said section subsequent to April 16, 1894, in accordance with the terms of the original contract, and the modifications thereof, assigned to them by said Agnew & Co.

*Second*—First party may order, and if so ordered, the second party shall construct from rock taken from said section a random rubble wall, laid in cement

mortar, in lieu of the dry wall specified. The preparations of the foundations of of said cement wall shall conform to the requirements stipulated for dry rubble walls. Sand to be coarse, clean and sharp, free from loam and pebbles.

*Cement*—The best American hydraulic cement shall be used, brand and quality to be subject to approval by the Chief Engineer, who shall from time to time cause such tests to be made as may seem to him proper for determining the quality of the cement which is shipped for use in the work. The development of tensile strength shall be 100 pounds per square inch, after having set seven days. Second party shall keep on hand a supply of cement equal to the average consumption in the work during a period of ten days, and it shall be protected against rain or dampness, and so stored as to make the procurement of samples for testing easy. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

*Mortar*—The mixture shall be of sand and cement in equal parts. The sand and cement shall be thoroughly incorporated with each other before water is added. All mortar used shall be freshly mixed in clean boxes. No hard or partially set mortar shall be used. Water for mixing shall be clean. In laying the wall care shall be taken to secure bond by proper use of headers and stretchers, so far as the stone available for the work will admit, but the wall shall be so thoroughly slushed with cement mortar as to insure the filling of all interstices, and the development of a monolithic mass, so soon as the mortar shall have set. Stone used shall be sound and clean.

The wall shall be pointed with the specified mortar throughout before acceptance; all joints shall be raked out to a depth equal to three times their width to receive pointing. Work on cement masonry walls to be begun after the period of freezing in the spring, and to be suspended before freezing begins in the fall.

The walls shall conform to the dimensions elsewhere specified herein. The faces of the walls shall conform to the batter specified, the stones being generally bedded in planes approximately perpendicular to the faces.

Weeping holes shall be left in the walls every fifty feet at an elevation about two feet below the datum. These holes shall not exceed thirty-six square inches of cross-section.

For said wall laid in cement, as herein



specified, second party shall receive three and twenty-five one-hundredth dollars (\$3.25) per cubic yard, measured in the wall

*Third*—The work of building retaining walls laid in cement mortar, if they be required, shall be undertaken in manner and form as follows: within fifteen days after date hereof, second party shall pump out that part of the section east of a point near Station 1020, and maintain this part of the work continuously free from water. They shall then begin at the east end of the section and remove all material overlying the solid rock, working progressively through the full width of the section. The rate of progress of this work shall not be less than two hundred feet, measured along the center line of the channel, per week. The first two hundred feet of this work having been accomplished, second party shall at once undertake the construction of the retaining walls, and continuously proceed with the work at the rate of progress averaging two hundred lineal feet, or the equivalent thereof in yardage, at each side of the channel per week, provided that not less than one hundred and fifty lineal feet, or its equivalent, at each side of the channel be completed in any one week, nor less than eight hundred lineal feet at each side of the channel in any consecutive four weeks.

Second party shall provide such available plant for this work as will insure the rate of progress from the beginning, replacing it as time progresses with such improved or more economical plant as may be adapted to the work.

If at any time the Chief Engineer shall be satisfied, and shall so certify to the Board of Trustees in writing, that the contractor has undertaken and is accomplishing an equivalent amount of retaining wall work in other parts of the section, this part of the specifications as to procedure shall not be operative, nor shall it be operative when, in the opinion of the Chief Engineer, the temperature is unfavorable for the proper prosecution of the work.

*Fourth*—Second party agrees to begin work within fifteen days from date hereof and to carry it on at such points and in such order of procedure as the Chief Engineer may direct.

All the main channel work provided to be done under said original contract shall be completed and ready for inspection on or before the 31st day of May of the year 1896.

The work done each month shall not

be less than such proportion of the whole work as one month bears to the total number of months agreed upon for the completion of said work; provided, that the time from the date hereof to June 1, 1894, shall be considered as one month; and the last two months before date of completion as one month; and, provided further, that this rate shall not be required if at any time the aggregate work done exceeds the total proportion due to the time that has passed since May 1, 1894; and always provided that the Sanitary District shall not be obliged to make payment in excess of the above monthly proportion; and said May 1, 1894, is hereby fixed as the date from which all progress estimates shall be made, and the rate of monthly progress shall be determined by the ratio of the aggregate sum of money due for the respective classes of work performed during any month to the total estimated cost of the work on said section. This provision as to progress takes the place of the paragraph of said agreement of February 14, 1894, between Agnew & Co. and first party, numbered "Fourth," and is to control in lieu thereof.

*Fifth*—Second party shall furnish a bond in the sum of one hundred thousand (\$100,000) dollars, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract; and should the sureties on said bond at any time fail financially, or be, in the opinion of said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten days' notice thereof in writing, require second party to furnish a new or additional bond in the place of the bond so having become insufficient and worthless.

*In witness whereof*, The Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part have hereunto set their hands and seals this twentieth (20th) day of April, A. D. 1894," etc.

—  
"We, the undersigned, Horatio P. Mason, Charles E. Hoge, John King and Harry B. Hanger, co-partners doing business under the firm name and style of Mason, Hoge & Co., in consideration of the assignment to us by Francis Agnew. John P. Agnew and John McGillen, co-



partners, doing business under the firm name and style of Agnew & Co., of all their right, title and interest in and to their contract with the Sanitary District of Chicago, dated the 18th day of July, A. D. 1892, for the complete and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section six (6), together with the building of all collateral works which by the terms of said contract are included in the same, and also including such modifications of said contract as have since been agreed upon, and of all their interest in and to any moneys due or that may hereafter become due under said contract or the modifications thereof, and the consent of said Sanitary District of Chicago to such assignment, do on our part covenant and agree with said Sanitary District of Chicago faithfully to carry out and perform all the terms and conditions of said contract, as set out in the same, and the modifications thereof heretofore entered into, including the supplemental agreements of July 5, 1893, and February 14, 1894, and do hereby especially agree that said contract and the modifications thereof be and the same are hereby further modified in accordance with the stipulations which are hereto attached and made part hereof.

*In witness whereof*, we have hereunto set our hands and seals this twentieth (20th) day of April, A. D. 1894," etc.

—  
(Section 7.)

"*Know all men by these presents*, That we, Francis Agnew, John P. Agnew and John McGillen, co-partners doing business under the firm name and style of Agnew & Co., in consideration of the sum of one dollar (\$1.00) to us in hand paid and of other good and valuable considerations, do hereby sell, assign, transfer and convey to Horatio P. Mason, Charles E. Hoge, Dennis Shanahan, William A. Rinehart, Chiswell D. Langhorne and Garrett G. Gooch, co-partners doing business under the firm name and style of Mason, Hoge & Co., all our right, title and interest in and to a contract entered into by us with the Sanitary District of Chicago and dated the 18th day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the main drainage channel of said Sanitary District of Chicago, known as Section seven (7), together with the building of all collateral works, which by the terms of said

contract are included in the same, and also including such modifications of said contract as have since been agreed upon, and do also hereby sell, assign, transfer and convey to said Mason, Hoge & Co. all our right, title and interest in and to any moneys now due or that may hereafter become due and payable under the terms and conditions of said contract and the modification thereof.

*In witness whereof*, We have hereunto set our hands and seals this twentieth (20th) day of April, A. D. 1894," etc.

—  
"The Sanitary District of Chicago hereby consents to the assignment by Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., to Horatio P. Mason, Charles E. Hoge, Dennis Shanahan, William A. Rinehart, Chiswell D. Langhorne and Garrett G. Gooch, co-partners, doing business under the firm name and style of Mason, Hoge & Co., of their contract with the Sanitary District of Chicago, dated the 18th day of July, A. D. 1892, for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of the Main Drainage Channel of said Sanitary District of Chicago known as Section seven (7), together with the building of all collateral works which by the terms of said contract are included in the same, and also including such modifications of said contract as have since been agreed upon, on the condition that said contract and the modifications thereof heretofore entered into by the supplemental agreements of July 5, 1893, and February 14, 1894, be further modified in accordance with the stipulations which are hereto attached and made a part hereof.

*In witness whereof*, The said Sanitary District of Chicago has caused these presents to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed this twentieth (20th) day of April, A. D. 1894," etc.

—  
"In consideration of the assignment to Horatio P. Mason, Charles E. Hoge, Dennis Shanahan, William A. Rinehart, Chiswell D. Langhorne and Garrett G. Gooch, co-partners, doing business under the firm name and style of Mason, Hoge & Co., by Francis Agnew, John P. Agnew and John McGillen, co-partners, doing business under the firm name and style of Agnew & Co., of their contract with the Sanitary District of Chicago of the date of July 18, 1892, for the

excavation of that portion of its Main Drainage Channel known as Section seven (7), with the modifications thereof thereafter agreed to by the supplemental agreements between said parties, of July 5, 1893, and February 14, 1894, and the consent of said Sanitary District of Chicago to such assignment, the parties hereto, to-wit, said Sanitary District of Chicago, hereinafter referred to as first party, and said Mason, Hoge & Co., hereinafter referred to as second party, hereby covenant and agree that said contract and the modifications thereof aforesaid shall be and the same are hereby further modified in accordance with the stipulations here following, but in all other respects to be and remain in full force and effect.

#### STIPULATIONS.

*First*—Second party shall when necessary excavate on the northerly side of the Main Channel between Stations 1050 and 1056 all muck or other soft or unstable material overlying the hard and stable material, to a width in excess of the standard width of the rock channel, which excess width shall be equal to four times the depth of the soft or unstable material, as measured from its surface to the top of the hard material. On the berm so laid bare they shall deposit broken rock or other suitable material, forming an embankment which shall be eight (8) feet or less wide on the top at an elevation of five (5) feet above datum, with a natural side slopes which such material shall assume after being dumped, approximately one and one-fourth ( $1\frac{1}{4}$ ) feet horizontal to one foot vertical, or if it shall be found practicable and shall instead be so ordered by the Engineer, a track shall be laid along side of the cut on that portion of the work covered by this agreement and broken rock or other suitable material dumped over the edge and an embankment formed so far as necessary, for the purpose of sustaining the sides of the cut and preventing sliding or subsidence of the same when the section is unwatered; the revetting embankment so formed shall be eight (8) feet wide on top with such side slope toward the channel as the material used will naturally assume, approximately one and one-fourth ( $1\frac{1}{4}$ ) feet horizontal to one (1) foot vertical. Should first party so order the southerly side of the channel shall receive the same treatment that has been hereinbefore prescribed for the northerly side. For all loose rock or other suitable material deposited in the embankment hereinbefore described and provided for, first party will pay and

second party will receive as a full compensation therefor the sum of sixty-five (65) cents per cubic yard measured in the prism of the embankment, provided no payment for any revetment or its equivalent shall be made except for such work as shall be specifically ordered by the Chief Engineer of first party, in writing. It is further understood that the back-filling behind retaining walls provided for in the original contract shall constitute the filling of all space in rear of retaining walls which has been excavated and not filled by the revetment. And all work of back-filling shall be done at the expense of second party. The soft material removed from that portion of the channel west of the Bracken Bank to be deposited not closer than two hundred and thirty (230) feet from the center line of the Main Channel and upon the spoil areas for said section shown upon the map hereto attached marked 'No. 1,' and made a part hereof.

The existing contract of March 24, 1894, between Charles Vivian & Co. and first party, by its Engineer, has been transferred to and assumed by second party herein, who will themselves make the payments called for thereunder, and second party shall receive payment for all excavation made on said section subsequent to April 16, 1894, in accordance with the terms of the original contract and the modifications thereof, assigned to them by said Agnew & Co.

*Second*—If, in the prosecution of the work upon said section, rock suitable for dimension stone wall shall be found, and the Chief Engineer of first party shall so direct, second party agrees to excavate the same so as to preserve the thickness of the natural courses, upon such surface areas as shall be designated and required of him by the Engineer, provided that such sizes shall not be greater than can be handled by the best class of hoisting machinery commonly used in the Le-mont quarries. No course thinner than eight inches or thicker than thirty-six inches is to be quarried and estimated for payment in excess of the original contract price for solid rock excavation, nor shall the width of any stone be less than twice its thickness. The stone so quarried shall be deposited safely upon the berm, or at such designated places on the right of way, conveniently for removal as the Engineer of first party shall prescribe. For all dimension stone saved in accordance with these specifications the contractor is to be paid the sum of one (1) dollar per



cubic yard for each yard so excavated and deposited in addition to the regular contract price for rock excavation, measurement for such extra payment to be based upon the net contents of each block. The dimensions of each block to be carefully recorded by the Chief Engineer, or his properly authorized agent. It is further agreed that the required rate of progress for this section hereinafter prescribed shall not include the stone thus quarried, but same shall be considered separately and apart from the uniform rating for this portion of the work, and shall be returned in a separate voucher.

*Third*—First party may order, and if so ordered the second party shall construct from rock taken from said section, a random rubble wall laid in cement mortar in lieu of the dry wall specified. The preparation of the foundations of said cement wall shall conform to requirements stipulated for dry rubble walls. Sand to be coarse, clean and sharp, free from loam and pebbles.

**Cement**—The best American hydraulic cement shall be used, brand and quality to be subject to approval by the Chief Engineer, who shall from time to time cause such tests to be made as may seem to him proper for determining the quality of the cement which is shipped for use in the work. The development of tensile strength shall be one hundred pounds per square inch after having set seven days. Second party shall keep on hand a supply of cement equal to the average consumption in the work during a period of ten days, and it shall be protected against rain or dampness and so stored as to make the procurement of samples for testing easy. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

**Mortar**—The mixture shall be of sand and cement in equal parts. The sand and cement shall be thoroughly incorporated with each other before water is added. All mortar used shall be freshly mixed in clean boxes; no hard or partially set mortar shall be used. Water for mixing shall be clean. In laying the wall care should be taken to secure bond by proper use of headers and stretchers, so far as the stone available for the work will admit, but the wall shall be so thoroughly slushed with cement mortar as to insure the filling of all interstices and the development of a monolithic mass, so soon as the mortar shall have set. Stone used shall be sound and clean.

The wall shall be pointed with the

specified mortar throughout before acceptance; all joints shall be raked out to a depth equal to three times their width receive pointing. Work on cement masonry walls to be begun after the period of freezing in the spring and to be suspended before freezing in the fall.

The wall shall conform to the dimensions elsewhere specified herein. The faces of the walls shall conform to the batter specified, the stones being generally bedded in planes approximately perpendicular to the faces.

Weeping holes shall be left in the walls every fifty feet at an elevation about two feet below datum. These holes shall not exceed thirty-six square inches of a cross-section. For said wall laid in cement as herein specified second party shall receive three and twenty-five hundredths (\$3.25) dollars per cubic yard, measured in the wall.

*Fourth*—Second party agrees to begin work within fifteen days from date hereof, and to carry it on at such points and in such order of procedure as the Chief Engineer may direct. All the Main Channel work provided to be done under said original contract shall be completed and ready for inspection on or before the 31st day of May of the year 1896.

The work done each month shall not be less than such proportion of the whole work as one month bears to the total number of months agreed upon for the completion of said work, provided that the time from the date hereof to June 1, 1894, shall be considered as one month, and the last two months before date of completion as one month, and provided further, that this rate shall not be required, if at any time the aggregate work done exceeds the total proportion due to the time that has passed since May 1, 1894; and always provided, that the Sanitary District shall not be obliged to make payment in excess of the above monthly proportion; and said May 1, 1894, is hereby fixed as the date from which all progress estimates shall be made, and the rate of the monthly progress shall be determined by the ratio of the aggregate sum of money due for the respective classes of work performed during any month to the total estimated cost of the work on said section. This provision as to progress takes the place of the paragraph of said agreement of February 14, 1894, between Agnew & Co. and the first party, numbered 'fourth,' and is to control in lieu thereof.

*Fifth*—Second party shall furnish a bond in the sum of one hundred thousand



(\$100,000) dollars, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract, and should the sureties on said bond at any time fail financially, or be, in the opinion of said Board of Trustees, insufficient security for the penalty of said bond, then in that case they may, on giving ten days' notice thereof in writing, require second party to furnish a new or additional bond in the place of the bond so having become insufficient or worthless.

*In witness whereof*, The Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party to the second party have hereunto set their hands and seals this twentieth (20th) day of April, A. D. 1894," etc.

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"We, the undersigned, Horatio P. Mason, Charles E. Hoge, Dennis Shanahan, William A. Rinehart, Chiswell D. Langhorne and Garrett G. Gooch, co-partners doing business under the firm name and style of Mason, Hoge & Co., in consideration of the assignment to us by Francis Agnew, John P. Agnew and John McGillen, co-partners doing business under the firm name and style of Agnew & Co., of all their right, title and interest in and to their contract with the Sanitary District of Chicago, dated the 18th day of July, A. D. 1892, for the complete and entire removal of earth, rock, glacial drift and other material from that portion of the main drainage channel of said Sanitary District of Chicago known as Section Seven (7), together with the building of all collateral works which, by

the terms of said contract, are included in the same, and also including such modifications of said contract as have since been agreed upon, and of all their interest in and to any moneys due or that may hereafter become due under said contract or the modifications thereof, and the consent of said Sanitary District of Chicago to such assignment, do on our part covenant and agree with said Sanitary District of Chicago faithfully to carry out and perform all the terms and conditions of said contract as set out in the same, and the modifications thereof heretofore entered into, including the supplemental agreements of July 5, 1893, and February 14, 1894, and do hereby especially agree that said contract and the modifications thereof be and the same are hereby further modified in accordance with the stipulations which are hereto attached and made part hereof.

*In Witness Whereof*, we have hereunto set our hands and seals this twentieth (20th) day of April, A. D. 1894," etc.

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#### ACTION OF BIDS ON SECTIONS 1, N AND O.

Mr. Cooley, Chairman, made a verbal report from the Joint Committee on Engineering and Finance, with reference to action on the bids received and referred to that Committee on April 18, 1894, for the work on Section 1 and Sections N and O of the Main Channel, stating that the Committee would endeavor to present their report on the same at the next meeting.

#### ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

April 20,]

—1891—

[1894.

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

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APRIL 25, 1894.

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#### OFFICIAL RECORD.

*Published by authority of the Board of Trustees of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and nineteenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, April 25, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Eckhart, Kelly, Prendergast and Wenter—six (6) members, were present.

#### MINUTES.

On motion of Mr. Boldenweck, seconded by Mr. Kelly, action on the minutes of the regular meeting held April 18, 1894, and of the adjourned session of

the same regular meeting, held April 20, 1894, was postponed until the next meeting.

#### MESSAGE ON NOTICE OF HARLEV INJUNCTION ON CONTRACT FOR SECTION 1.

The President presented a message, stating that he had been served with notice of an injunction by Alfred Harlev, restraining the District from re-letting or re-contracting all or any part of the work on Section One (1).

The message was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE MESSAGE:

“CHICAGO, April 25, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I was served yesterday



afternoon with a copy of an injunction writ in a suit in which Alfred Harlev is complainant and the Sanitary District is defendant, commanding the Sanitary District to refrain from re-letting or re-contracting all or any part of Section one (1) of the Drainage Canal, from taking, appropriating or interfering with said Harlev's plant, or any part thereof, and from interfering with said Harlev's rights under his contract for said Section one until further order of Court.

I am informed by the Attorney that this Board should not take any further action with reference to re-letting the contract on Section one until the injunction has been disposed of by the Court.

Respectfully submitted,

(Signed) FRANK WENTER,  
*President."*

MESSAGE CONCERNING APPROPRIATION  
FOR CHICAGO RIVER.

The President presented a message, with reference to and accompanied by a communication from Congressman Durborow, enclosing a copy of the United States River and Harbor Bill, concerning an appropriation of \$80,000 by the Government for the improvement of the Chicago River; and the message and accompanying communication were read.

By unanimous consent the message and accompanying communication were ordered printed, and, with enclosure, placed on file.

The following is

THE MESSAGE, WITH COMMUNICATION:

"CHICAGO, April 25, 1894.

*To the Honorable the Board of Trustees of  
the Sanitary District of Chicago :*

GENTLEMEN—At the regular meeting of January 24, 1894, (page 1719 of the Proceedings) I was empowered by your Honorable Board to visit Washington, in response to the invitation of Congressman Durborow, and appear before the Committee on Rivers and Harbors of the House of Representatives, in behalf of the Sanitary District, with a view to having an appropriation made for the deepening and improvement of the Chicago River.

I am in receipt of a communication from Congressman Durborow, explaining fully what was accomplished, which I transmit herewith to the Board, and recommend that the same be printed in the Proceedings. I am also in receipt

of a copy of the bill passed by the Committee on Rivers and Harbors, which is transmitted herewith for filing.

I can say on behalf of Congressman Durborow and his colleagues from Chicago, that they are enthusiastically in favor of not only deepening and improving the Chicago River, but of all legislation that will tend toward the enlistment of Federal aid in the completion of a navigable water-way to the Mississippi.

The Committee on Rivers and Harbors, with perhaps one or two exceptions, were heartily in favor of the policy of the Sanitary District, and had it not been for the financial stringency of the Treasury, a much larger appropriation would have been obtained.

However, this appropriation for the Chicago River is an entering wedge, and gives the subject recognition and a standing before the Committee on Rivers and Harbors for all further legislation.

Respectfully submitted,

(Signed) FRANK WENTER,  
*President."*

(2 enclosures.)

"HOUSE OF REPRESENTATIVES, U. S. }  
WASHINGTON, D. C., April 23, 1894. }

*Hon. Frank Wenter, President of Board  
of Sanitary Trustees, Rialto Building,  
Chicago, Illinois.*

DEAR SIR—Under another enclosure I am sending you a copy of the river and harbor bill of the present Congress as reported to the full House by the Committee. As you will notice from the passage marked, the Committee insert an appropriation of \$80,000 for the improvement of the Chicago Harbor, with the provision that \$25,000 thereof shall be expended in the Chicago River between its mouth and the forks at Lake street. It is the intention of the Chicago Congressional delegation when this bill is brought before the House to endeavor to have the amounts changed somewhat in order to give a larger proportion of the money for the improvement of the river, and we have little doubt but what we shall succeed in this matter.

Under the circumstances, I feel that our people are to be congratulated in securing even this small appropriation; for in the present condition of the Treasury, all appropriations for river and harbor improvement were reduced to from ten to twenty per cent of the amount recommended by the Board of

Engineers. While an official examination had been made of the Chicago River, showing what could profitably be expended on it, this communication did not come before the Committee purely in the light of a recommendation for an appropriation for sanitary reasons which you fully understand, so that we were obliged to couple together the two projects, the Chicago Harbor and the Chicago River, for which we obtained the full amount of the appropriation officially recommended for the harbor, with a direction that a portion should be expended upon the river. This action means that the Federal Government will now enter upon the Chicago River, and, having done so, this project will be included in the regular estimates from year to year to be appropriated for by Congress. We can also look forward with confidence for the next session of Congress securing a considerable appropriation, which while improving the facilities of navigation will go a long way toward committing the Federal Government to a connection with our great drainage canal, looking to a carrying out of the entire project as contemplated by the Sanitary Trustees of which you are the head.

In conclusion, permit me to express my appreciation of the assistance which you rendered our delegation by your recent visit to Washington, and your efforts to aid us with the Committee on Rivers and Harbors. I feel that you are entitled to a large portion of the credit for this success, and know that in our next contest your influence as a representative of these interests will be even more strongly impressed upon the Committee.

With kind regards for yourself and associates, I am,

Respectfully yours,

(Signed) ALLAN C. DURBOROW, JR.,

*M. C. 3rd District of Illinois."*

(Accompanied by copy of River and Harbor Bill.)

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### *Construction Account—*

Agnew & Co. (Sec. 8, extra work, final)....	\$2,000 00
Agnew & Co. (Sec. 9, extra work, final)....	3,000 00
Western Dredging & Improvement Co. (Sec. C, raising canal banks).....	167 49

McArthur Bros. Co., (Sec. E, repairing break in canal banks)	31 50
Board of Canal Commissioners of the State of Illinois (Sec. E, repairing break in canal banks).....	1,232 45
	<u>\$6 431 44</u>

#### ENGINEERING DEPARTMENT.

Hibbard, Spencer, Bartlett & Co. (hardware)	\$ 35 17
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#### CLERICAL DEPARTMENT.

Waukesha Hygeia Mineral Springs Co. (water).....	\$ 3 75
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#### GENERAL ACCOUNT.

<i>The Engineering Record</i> , (advertising Secs. 1, N and O).....	\$ 104 00
<i>The Engineering News Publishing Co.</i> (advertising Secs. 1, N and O).....	129 60
<i>The Railway Review</i> , (advertising Secs. 1, N and O).....	114 24
<i>The Chicago Times</i> , (advertising Secs. 1, N and O).....	379 04
Chicago Edison Co. (electric lighting)....	14 78
H. Schultz & Co. (paper boxes for history)	6 25
	<u>\$ 747 91</u>

#### POLICE DEPARTMENT.

Frank E. Michaud, (final estimate, Hyman avenue police station).....	\$ 648 62
L. H. Manson, (horse).....	110 00
	<u>\$ 758 62</u>

Grand total..... \$7,976 89

Mr. Boldenweck, seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Kelly, Prendergast and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

#### WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the

District for the week ending April 21, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, April 25, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending April 21, 1894, as the same have been reported to me:

Engineering Department.....	111
Clerical Department.....	4
Treasury Department.....	1
Law Department....	7
Police Department.....	38

Total employes..... 161

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of March, 1894.

The same was read, and, by unanimous consent, was ordered printed and, with accompanying classified statement, placed on file.

The following is

THE REPORT:

"CHICAGO, April 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the reports of Divisions 1, 2 and 3, showing the detailed operations of the Engineering Department for the month of March, including table giving the rate of progress on the several contracts; also a classified statement of expense in the usual form.

Expenses for the month of March were as follows:

Contractor's estimates.....	\$183,279.96
Pay rolls.....	12,269.80
Material, etc.....	19,475.69

Total for March.....\$215,025.45

I estimate the expenses for April will be \$225,000.00, including contractors' estimates.

Yours truly,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

(Accompanied by classified statement.)

"CHICAGO, April 20, 1894.

*Mr. Isham Randolph, Chief Engineer Sanitary District:*

DEAR SIR—The monthly statement of progress for the month of March, the "Table showing the Condition of the Work" on the 1st inst., and the "Daily Average Force Account" for the same period, are herewith presented as follows:



## FORCE REPORT—DAILY AVERAGE, MARCH, 1894.

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Chan- nelers.	Air Com- pressors.	Cantilever Derricks.	Locomo- tives.	Cars.	Dredges.	Cable way.
M.	7	1											
L.	43	3	3										
K.	4	1											
I.	59	9	9	6		1							
H.	9	1		1									
G.	21	23		5								7	
F.	79	2	2	5.4						3	22		
E.	22	2											
D.	122	63	15	3.2						4	34		
C.	84	7	2	2.1						4	22		
B.	61	1										4	
A.	51	2										2.4	
2.	241	12		3.7									
3.	343	11		6.2		5							
4.	208	23	6	2.4		8							
5.	23			3.2									
6.	43			7								1.8	
7.	229	4		3.8	6.3	2.4	2.2		1.5				
8.	234	29		5.5	8.2	1.4	3.4						9
9.	264	6		5.7	10	1.8	4.5		1.5				
10.	407	7		5.0	18.5	3.0	7.4	1.2	2.8				
11.	160	4		5.8	10.2		6.2	1.0	3				
12.	106	2		3.9	6.6		2.7	1.0	2.5				
13.	229	4		6.0	14.3		7.4	1.0	3.6				
14.	128	8	4	3.4	3.6	.9	2.5				17		
Totals.	3175.4	225	8.2	67.2	77.7	11.8	36.3	4.2	14.5	11	102	4.6	.9

STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE  
MONTH OF MARCH, 1894 (MAIN CHANNEL).

SECTIONS.	Amount Done During March.	Average Monthly Requirement.	Deficiency for March.	Excess Over Monthly Requirement.	Per Cent. of Monthly Requirement.
F.	\$ 4,162 90	\$ 9,876 69	\$ 5,713 79		0.42
E.		16,037 88	16,037 88		0.00
D.	17,489 23	16,189 97		\$ 1,299 26	1.08
C.	5,665 62	13,352 40	7,686 78		0.42
B.	4,374 00	13,443 95	9,069 95		0.33
A.	23,110 85	24,224 63	1,113 78		0.95
1.					
2.	14,900 00	13,552 56	3,652 56		0.80
3.	18,984 00	23,251 42	9,267 42		0.67
4.	14,342 61	19,647 27	5,304 66		0.73
5.	135 00	13,202 26	13,067 26		0.01
6.	4,779 00	14,743 47	9,964 47		0.32
7.	14,672 00	17,405 63	2,727 63		0.84
8.	16,916 25	21,295 08	4,378 83		0.79
9.	17,302 50	19,232 36	1,929 86		0.90
10.	37,440 00	22,472 29		14,967 71	1.66
11.	18,386 00	19,493 74	1,107 74		0.94
12.	19,020 00	19,172 88	152 88		0.99
13.	31,469 75	18,588 65		12,881 10	1.69
14.	8,030 00	19,891 82	11,861 82		0.40
Totals.	\$271,185 71	\$345,074 95	\$103,037 31	\$29,148 07	0.78½

TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVERSION) AND CONDI

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION.	
		Glacial Drift	Solid Rock.	Glacial Drift	Solid Rock.
		Cubic Yards.	Cubic Yards.	Cubic Yards.	Cubic Yards.
M	The Heidenreich Co.....	1,000			
L	The Heidenreich Co.....	1,800			
1	Christie & Lowe.....	3,874			
G	Gahan & Byrne.....	34,164			
F	Ricker, Lee & Co.....	299,584		158,284	
E	Streeter & Kenefick.....	469,163		95,718	
D	E. D. Smith & Co.....	369,946			
C	Western Dredging & Imp. Co.....	195,122		162,537	
B	Heldmaier & Neu.....	16,200		204,626	
A	Heldmaier & Neu.....	179,335		117,786	
1		107,600		5,876	
2	McArthur Bros.....	201,200		29,500	
3	Gilman & Co.....	183,410			
4	McArthur Bros.....	216,443			
5	The Qualey Construction Company	248,900			
6	Agnew & Co.....	177,300		112,700	
7	Agnew & Co.....	88,100	99,800	96,700	41,000
8	Mason, Hoge, King & Co.....	22,500	111,400	52,900	95,500
9	Halvorson, Richards & Co.....	50,700	130,200	37,700	16,000
10	E. D. Smith & Co.....	26,400	349,300	27,400	56,500
11	Mason, Hoge & Co.....	43,492	342,600	5,756	11,483
12	Mason, Hoge & Co.....	27,400	355,000		
13	Mason, Hoge & Co.....	32,822	477,800		
14	Smith & Eastman.....	44,566	136,500		
Totals.....		3,041,021	2,002,600	1,107,433	220,483

Main Channel, glacial drift.....  
Main Channel, solid rock.....  
River Diversion, glacial drift.....  
River Diversion, solid rock.....

Total amount required to be done April 1st, 1894.....  
Total amount done April 1st, 1894.....

Amount short as per contracts.....  
Shortage reduced by special work done on River Diversion as per  
Net shortage.....

Total value of work done April 1st, 1894.....  
Reserved..... }  $12\frac{1}{2}$  per cent.....  
} 10 per cent.....

Total value of vouchers paid including those of April 1st, 1894.....

## TION OF WORK ON CONTRACTS, AS SHOWN BY ESTIMATE OF APRIL 1ST, 1894.

Total value of work done to April 1st, 1894, on each section.	Total value of work required to be done to April 1st, 1894.	Amounts behind as per contracts.	Amounts ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary January 1, 1894, to time of completion.	Progress made during month of March, 1894.
\$ 217 00	\$ 4,691 26	\$ 4,474 26		\$ 6,255 02	\$ 6,255 02	\$ 217 00
354 60	6,486 27	5,131 67		8,648 36	8,648 36	354 60
968 50	8,521 45	7,552 95		11,361 94	11,361 94	
9,565 92	11,843 53	2,277 61		15,791 38	15,791 38	9,565 92
108,731 78	101,305 86		\$ 7,425 92	10,719 46	9,946 25	4,162 90
155,342 28	143,165 88		12,176 40	16,646 52	14,543 31	
97,804 47	140,288 97	42,484 50		16,189 97	17,361 16	17,499 20
84,049 86	130,910 85	46,860 99		14,545 65	15,181 13	5,665 62
59,623 02	135,735 84	76,112 82		15,081 76	16,016 16	4,374 00
90,993 31	228,657 42	137,664 11		25,406 38	28,852 64	25,867 11
30,638 52	287,294 04	256,655 52		23,941 17	29,786 94	
102,788 00	271,305 72	168,517 72		19,378 98	24,040 90	14,900 00
81,449 70	132,548 30	51,098 60		28,188 65	27,764 65	18,984 00
95,366 61	307,795 05	212,428 44		20,519 67	25,892 29	14,342 61
67,208 00	191,432 77	124,229 77		13,202 26	16,347 24	135 00
78,300 00	226,191 01	147,891 01		15,599 38	19,410 66	4,833 00
151,536 00	272,269 98	120,733 98		18,777 24	21,951 52	14,678 00
174,261 75	375,062 72	200,800 97		23,441 42	29,169 63	16,916 25
135,411 80	317,340 64	181,928 84		19,833 79	25,568 28	17,302 50
338,090 00	378,886 88	40,796 88		23,680 43	26,373 31	37,440 00
295,508 30	316,920 64	21,412 34		19,807 54	20,621 43	18,386 00
289,626 00	308,606 24	18,980 24		19,287 39	19,406 36	19,020 00
365,689 22	297,418 40		68,270 82	18,588 65	16,855 10	31,469 75
108,798 20	318,269 12	209,470 92		19,891 82	25,709 24	8,030 00
\$2,922,317 84	\$1,912,948 84	\$2,078,504 14	\$87,873 14	\$424,785 33	\$472,854 90	\$284,133 46

	Cubic Yards.
.....	3,041,021
.....	2,002,600
.....	1,107,433
.....	220,483
.....	\$1,912,948 84
.....	2,922,317 84
.....	\$1,990,631 00
previous statements.....	115,421 85
.....	\$1,875,209 15
.....	\$2,922,317 84
.....	\$354,540 96
.....	66,196 20
.....	420,737 16
.....	\$2,501,580 68



Considering the weather, there has been a marked improvement in the progress made on some of the sections, many of which are rapidly approaching the contract requirements. While most of the work seems to be now well in hand, with favorable prospects, it is to be regretted that upon some well advanced sections, from which no trouble was anticipated, conditions have developed that may greatly retard their completion, which will be hereinafter stated.

Since the letting of the last six sections (G, H, I, K, L and M) in January, but little has been done thereon in actual excavation. Being earth sections, and low ground, but little could be expected further than making preparations for operations which may be summarized as follows:

#### SECTIONS "L" AND "M."

These two sections, in the hands of same contractors, will be considered together.

One steam shovel commenced operation on the 19th of March, and the excavated material was removed to the spoil bank by means of two large dump cars and an inclined conveyor. The power is supplied by a "10 x 16" double cylinder steam hoisting engine. This method seems feasible and economical for removing the upper slopes of the excavation, and it is hoped that it is equal to all the requirements of the work; its capacity, however, has not yet been determined. Work is also being done on these sections with small dump cars loaded by manual labor

Trenches have been dug around and through the work for the purpose of drainage, and protection levees commenced. Both these sections are supplied with two inch water pipe extending their entire length, connected with the Chicago City water mains.

Their present plant consists of

- 2 Steam shovels.
- 2 Inclined conveyors with steam hoists.
- 1 4-inch centrifugal steam pump.
- 4 Large dump cars.
- 38 Small dump cars.

#### SECTIONS "I" AND "K."

These sections also belong to one contracting firm and will be considered together.

Their present plant comprises

- 2 Steam hoists, 30 and 35 H. P.
- 1 Steam shovel.
- 1 Truss conveyor, consisting of an iron span 210 feet in length, seated on trac-

tion towers at an elevation of 35 feet, with a two to one incline running into the pits, all of which is readily moved as occasion requires. This conveyor is supplied with a double cylinder 100 H. P. steam hoisting engine.

4 Large dump cars (5 cubic yards each.)

2 Small dump cars.

1 8-inch centrifugal steam pump.

This Truss Conveyor—the first one put up on the Drainage Canal—was completed and put in operation on the 29th ult. with such apparent satisfactory results that the contractors have ordered another. They have also purchased an electric light plant (on the work at this time) and intend to run two shifts of 10 hours each per day.

They have cut many surface drains through their work and commenced their levees. They also began excavation with teams and wheel scrapers, but had to suspend work on account of the ground being too wet and miry, and now have a large force of teams waiting until same is in a workable condition.

Their water supply is conveyed by a steam pump from a 6-inch well, 185 feet deep, to a large tank mounted on a 20-foot trestle, and thence carried in pipes throughout the work.

#### SECTIONS "G" AND "H."

These two sections, belonging to the same contractors, are the lowest of any of the six new sections, and have suffered most from wet and unfavorable conditions.

They have a large force of teams with which a portion of the top material was removed until it became too miry for their use, when small dump cars were substituted.

Meantime the work of preparation has been going on in the way of providing a water supply, making surface drains, levees, roadways, switches, putting up necessary buildings, etc., and getting ready for operations soon as conditions will permit.

The following machinery was on the work at the end of the month:

- 1 Steam shovel.
- 24 Dump cars and track
- 1 Steam pump.

#### SECTION "F."

This section is one of the second letting, on which progress has thus far been maintained, but the contractors have encountered a stratum of indurated clay or

"hard pan," which they claim can not be removed with a powerful steam shovel without first having been blasted; that this hard stratum is of such magnitude that they are unable to excavate it at their glacial drift price, and they therefore ask to have this particular material classified, with an increased price, as per their letter to the Board of Trustees of the 3rd inst. They seem to be awaiting a decision thereon, and, while the class of material complained of is undoubtedly included in their present contract price, I think prompt action should be taken to the end that the work on this section may not be unnecessarily delayed, as the rate of progress has been rapidly falling off for the past three months and has about consumed their previous excess.

From the report of the Assistant Engineer in charge I quote as follows:

"The steam shovel plant did not accomplish much during the month. The large shovel was idle twelve out of the twenty-seven days on account of breakdowns."

"It was taken out of the pit on the 31st and replaced by a small shovel. The large one is to be returned to the makers for a complete overhauling. The same hard material found at the west end was uncovered in the middle of the section."

#### SECTION "E."

The same conditions exist on this, as stated in the preceding section, and the same claim is presented thereunder. This section is still in excess of progress requirements, although work was suspended thereon in January. I do not think the contractors intend to resume until some action is taken by the Board upon their request for a classification. I therefore make the same recommendation as in the preceding section.

#### SECTION "D."

Although a claim, similar to that on the two preceding sections, has been made for hard material, the latter has not thus far been encountered to any great extent.

The work on the section during the month more than fulfilled the contract requirement, and bids fair to do so again during the current month. Although this section is still over 160,000 cubic yards in arrears, the contractors have supplemented their steam shovel and car plant with a large force of teams, and substantial improvement in progress is expected.

#### SECTION "C."

The threatened inundation of this section from the high water of the Desplaines River, materially interfered with the progress of the work on this section during the month. Owing to physical conditions, less than one-half of this section is susceptible of excavation at present, except by hydraulic process.

On this, the east part, there are employed:

- 2 Steam shovels.
- 4 Locomotives.
- 2 Steam pumps.
- 26 Large dump cars.
- 8 Small dump cars.

A hydraulic dredge is in process of construction which is expected to be ready for operation upon the west end of the section by May 15th.

#### SECTIONS "A" AND "B."

These sections belong to the same contractors and are being operated together. The soft, mucky material overlying this work is being excavated by hydraulic dredges, three of which removed about 120,000 cubic yards during the month, and are continuing the work at a satisfactory rate of progress.

#### SECTIONS NOS. 2, 3 AND 4.

Work on these sections was carried on with very similar appliances, being mostly by manual labor with the use of cars and wheelbarrows. Although not quite up to monthly progress requirements, the work is being put in better shape for future operations, and additional machinery is being provided. The levees have been amply reinforced and are undoubtedly safe.

#### SECTION NO. 5.

Owing to a slide on this work, operations were suspended pending a revision of the specifications, and practically nothing was done during the month.

#### SECTIONS NOS. 6 AND 7.

Work was continued on these sections pending an adjustment with the contractors, and, although far behind the contract rate, a better showing was made than in any previous month.

#### SECTION NO. 8.

Was transferred to Mason, Hoge & Company the 17th of last January. They are working a large force of carts, wagons and steam hoists. They are



also putting in an air compressor plant and four more cable ways, (making five of the latter) and fully equipping the section at an expense of nearly \$150,000.

The output for March was 79 per cent. of the contract requirement, and for the current month will doubtless exceed the regular rating.

#### SECTION NO. 9.

Was transferred to Halverson, Richards & Company on January 17th. They have largely increased the plant and brought up the output to 90 per cent. of the required monthly rate. They have been retarded by delays in furnishing machinery and channellers, which are now at hand, and full progress may hereafter be expected.

#### SECTION NO. 10.

Shows an output of \$37,440 for the month of March, \$14,967.71 in excess of the monthly requirement, a rate at which this section will be completed in about fifteen months.

#### SECTIONS NOS. 11, 12, 13.

These three sections average in advance of the contracts, and at the present rate of progress one of them will be finished within less than 12 months.

#### SECTION NO. 14.

The contractors on this section have laid several miles of track, and have gotten their locomotives, cars and steam shovels on the ground ready to commence on the removal of the glacial drift and putting in the embankments.

They are putting in a large air compressor plant and other machinery for handling the rock, together with an electric light plant to enable them to work nights, and seem to be getting in condition to show favorable results.

#### LEVEES.

The River Diversion levees are now considered safe, with the exception of that on Section "E," which is being reinforced and brought up to 20 feet above datum by the contractors.

An earth core is also required for a few hundred feet on the west end of Section No. 7. The Illinois and Michigan Canal Levee, opposite Sections "A," "B," and a part of Section "C," is also being reinforced as a precaution against possible high water pending the filling in of the trestle on Section "A."

With the Desplaines River now under

complete control, and the forces in most places well organized, the prospect is very favorable for the successful prosecution of the work.

Respectfully submitted,

(Signed)

U. W. WESTON,

*Supt. of Construction."*

"CHICAGO, April 10, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—The work of Division 2 for the month of March, 1894, was as follows:

Discharge measurements were taken in the Desplaines river at a point just north of the Spillway, also in the new river channel about a mile below the Willow Springs road. The reduction of these notes was commenced.

Determined elevations of high water surface of Desplaines river at points in and near Joliet.

Additional notes were taken of river channels in vicinity of wire mills at Lockport.

Some further topography was obtained north of the west fork of the south branch of the Chicago river, adjacent to Robey street.

A re-survey of lot for police station, near Hyman avenue, was made.

Determined profile and alignment of A., T. & S. F. Railway track from the Chicago & Calumet Terminal Railway to Ogden Ditch crossing. Connected same with triangulation stations.

Considerable work was done on the plans for the extension of the Main Channel below Section 14.

Commenced the construction of a relief map of the Desplaines Valley between the end of Section 14 and Joliet.

Considerable was done in connection with the contracts for Sections 5, 6 and 7. The maintenance and records of water gauges was continued.

The expense for April will approximate to that for March.

Very respectfully,

(Signed)

THOS. T. JOHNSTON,

*First Assistant Chief Engineer."*

"CHICAGO, April 11, 1894.

*Isham Randolph, Esq., Chief Engineer.*

DEAR SIR—I herewith submit the re-



port of Division 3 for the month of March, 1894.

Finished plans and estimates of a regulating wier, three maps of the watersheds of the Desplaines River and other streams, two profiles of the Chicago Divide and Illinois River and a population chart of 1890.

A general map was made of the Main Channel, river diversion and right of way from Summit to Lockport for the Committee room. Made descriptions and estimated the areas of tracts for the right of way between Lockport and Joliet and prepared a map showing Bannon's Subdivision for the Law Department, four maps of Section 6 and two maps of Section 5, showing the spoil areas and channels were drawn.

Considerable time was devoted to the preparation of maps for the Board room.

Work was continued on the Sanitary District map, the plans and cross sections for a relief map, right of way maps for the plat books, the progress charts and profiles and the coloring of the large and small prints of the general map.

Platting was continued on contour maps 20 and 21.

The plans for a wicket waste wier were commenced.

Some copies were made from the County Records for use in compiling the District maps.

The expense for April will be the same as for the past month.

Yours respectfully,

(Signed) EDGAR WILLIAMS,  
Second Assistant Chief Engineer."

#### COMPLETION OF NEW BONDS ON ASSIGNED SECTIONS 6 AND 7.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, transmitting completed bonds of Mason, Hoge & Company on Sections 6 and 7, the contracts for which were assigned by Agnew & Company, and stating that the assignments on Sections 6 and 7 heretofore transmitted had been properly executed, recommending that the accompanying bonds be approved, and that the President and Clerk be authorized and directed to execute the said assignments, on behalf of the District, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted,

ordered printed, and, with accompanying bonds, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said assignments on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Kelly, Prendergast and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with accompanying bonds, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said assignments, on behalf of the District, as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, April 25, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering transmit herewith the bonds of Mason, Hoge & Co., assignees for contract Sections six (6) and seven (7), each in the sum of one hundred thousand (\$100,000) dollars.

Said bonds are signed by sureties satisfactory to this Committee.

These bonds complete the assignments and the stipulations relating thereto, of said sections, as recommended by the Committee and approved by the Board at the meeting of April 20, 1894.

Your Committee recommend that the respective bonds as submitted herewith be approved and that the President and Clerk execute the assignments for said contract sections as heretofore directed by the Board.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.  
THOMAS KELLY,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,

*Joint Committee on Finance and Engineering."*

(Accompanied by two (2) completed bonds.)

## PAYMENT OF MAY INTEREST ON BONDS.

Mr. Eckhart, Chairman of the Committee on Finance, presented an order, authorizing and directing the Clerk to draw warrant on the Treasurer, payable to the order of the Treasurer, in the sum of forty-seven thousand five hundred (\$47,500) dollars, to be used in the payment of the May, 1894 interest on bonds, as provided in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Kelly, Prendergast and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk authorized and directed as provided in the same.

The following is

## THE ORDER:

“*Ordered*, That the Clerk of this District be, and he is hereby authorized and directed to draw a warrant upon the Treasurer, payable to the order of Melville E. Stone, Treasurer, in the sum of forty-seven thousand five hundred (\$47,500) dollars, and deliver the same to said Treasurer, said sum to be used by said Treasurer in paying the semi-annual interest due May 1, 1894, on the bonds of this District.”

## BID CHECK OF M'ANROW AND REILLY TO BE RETURNED.

Mr. Kelly presented an order, directing the Clerk to return the check (\$5,000) deposited by McAnrow and Reilly with bid No. 35, on Sections N and O which bid was declared informal for insufficiency of deposit; and the order was read.

Mr. Kelly, seconded by Mr. Eckhart, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Kelly Prendergast and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk directed as provided in the same.

The following is

## THE ORDER:

“*Ordered*, That the Clerk return to McAnrow & Reilly the deposit of five

thousand (\$5,000) dollars accompanying their bid for Sections N and O, said bid having been declared by the Board to be informal.”

## ADJOURNMENT TO SPECIAL TIME.

Mr. Kelly, seconded by Mr. Eckhart, moved that when the Board adjourn it do adjourn to meet Saturday, April 28, 1894, at 1:30 o'clock P. M.

The motion prevailed unanimously, and it was so ordered.

## PAYMENT TO JOHN LEHMAN FOR EXTRA WORK ON SECTION 1.

Mr. Eckhart presented an order, authorizing the Clerk to pay John Lehman for extra work done in November and December, 1893, under the direction of the Chief Engineer, on Section 1, as set forth in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Kelly, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Kelly, Prendergast and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk authorized as provided in the same.

The following is

## THE ORDER:

“WHEREAS, It appears that the claim of John Lehman for river diversion and levee work done on Section No. One (1) in the months of November and December, 1893, as revised and corrected by the Chief Engineer, is just and should properly be paid by this District, therefore be it

*Ordered*, That the Clerk pay, on the voucher of the Chief Engineer, to said Lehman the sum of five hundred and four dollars and forty-one cents (\$504.41) in full settlement of all claims held by him against the Sanitary District of Chicago.”

## ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned to meet Saturday, April 28, 1894, at 1:30 o'clock P. M., pursuant to motion.

THOS. F. JUDGE,

Clerk.

ADJOURNED MEETING.

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The adjourned session of the two hundred and nineteenth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Saturday, April 28, 1894, at 1:30 o'clock P. M., pursuant to motion.

On roll-call there were no members of the Board present.

At 2 o'clock P. M., there being still no quorum, in pursuance of the rules, the Board stood adjourned.

THOS. F. JUDGE,

*Clerk.*



April 20,]

—1905—

[1894.







PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES,

—OF THE—

SANITARY DISTRICT OF CHICAGO.

MAY 2, 1894.

OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and twentieth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, May 2, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7), and subsequently Messrs. Gilmore and Prendergast, making a total of nine (9) members, were present.

MINUTES.

The minutes of the regular meetings held April 18 and 25, 1894, and of the

adjourned meeting held April 20, 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Boldenweck.

VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (April, 1894).....	\$ 500 00
Eng. Dept., Div. No. 1, (April, 1894).....	7,697 89
Eng. Dept., Div. No. 1, Tow-path, (April, 1894).....	146 50
Eng. Dept., Div. No. 2, (April, 1894).....	1 956 62
Eng. Dept., Div. No. 3, (April, 1894).....	1,841 83
Eng. Dept., Div. No. 4, (April, 1894).....	340 00
Eng. Dept., discharged men's roll, (April, 1894).....	42 50
	\$12,525 34

Clerical Dept., Clerk's roll, (April, 1894)....	\$ 891 67
Law Dept., Attorney's roll, (April, 1894)....	\$ 1,286 67
Law Dept., Joliet roll, (April, 1894).....	333 33
	<hr/>
Treasury Dept., Treasurer's roll, (April, 1894).....	\$ 168 66
General Account, Sanitary Inspector's roll, (April, 1894).....	\$ 200 00
General Account, Trustees' roll, (April, 1894).....	2,333 33
	<hr/>
Police Dept., Marshal's roll, (April, 1894)....	\$ 3,113 32
	<hr/>
Total.....	\$20,850.32

## ENGINEERING DEPARTMENT.

<i>Construction Account—</i>	
Agnew & Co. (Sec. 6, March 21, 1894, final)	\$4,016 25
Agnew & Co. (Sec. 7, April 21, 1894, final) ..	5,974 06
John Lehman (Sec. 1, extra work, April 23, 1894, final).....	504 41
	<hr/>
	\$10,494 72

## ENGINEERING DEPARTMENT.

J. R. Davis & Son (test pits).....	\$ 344 52
Wm. Kirkman (gauge reading).....	10 00
Geo. Brainard (gauge reading) .....	10 00
E. Hastings (gauge reading) .....	10 00
Patrick McGinnis (gauge reading).....	10 00
Mary Rusk (gauge reading).....	10 00
Ebin J. Ward (traveling).....	59 08
Ebin J. Ward (emergency).....	14 45
	<hr/>
	\$ 468 05

## CLERICAL DEPARTMENT.

Western Bank Note & Engraving Co. (letter heads).....	\$ 29 00
Warner's Towel Supply (towelings).....	1 50
Trevor Spring Water Co. (water).....	3 00
	<hr/>
	\$ 33 50

## LAW DEPARTMENT.

Jos. Donnersberger (expert, right of way services, April, 1894) \$	300 00
Jas. M. Purcell (expert stenographer) ..	73 00
Wyckoff, Seamans & Benedict (ribbons) ..	9 00
Western Bank Note & Engraving Co. (letter heads).....	39 50

S. A. Moffett Co. (liv- ery).....	15 00
Orrin N. Carter (ex- pense).....	30 99
	<hr/>
	\$ 467 49

## TREASURY DEPARTMENT.

Western Bank Note & Engraving Co. (letter heads).....	\$ 14 50
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## GENERAL ACCOUNT.

John F. Higgins, (printing proceed- ings, April, 1894)....	\$ 183 50
Western Bank Note & Engraving Co. (en- graving steel letter head plate).....	85 00
R. R. Donnelly & Sons, (printing and bind- ing History).....	937 18
	<hr/>
	\$ 1,205 68
Grand total.....	<hr/>
	\$33,534 26

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisition:

No. 478, Law Department (post-age stamps) ..... \$10.00

Mr. Kelly, seconded by Mr. Boldenweck, moved that Requisition No. 478, for the Law Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 478, for the Law Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending April 28, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, May 2, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending April 28, 1894, as the same have been reported to me:

Engineering Department.....	115
Clerical Department.....	4
Treasury Department.....	1
Law Department....	8
Police Department.....	38

Total employes..... 166

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

DEPOSIT OF SPOIL ON SOUTHERLY SIDE OF SECTION 5.

The Clerk presented a report from the Chief Engineer, asking authority to secure the deposit of spoil on the southerly side of Section 5, for which the Qualey Construction Company are contractors, said work to be done without extra cost to the District; and the report was read.

In connection with the report, Mr. Boldenweck presented an order, authorizing and directing the Chief Engineer to secure the spoiling on the southerly side of Section 5, without expense to the District, as recommended in the report; and the order was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the report be ordered printed and placed on file, the order adopted, and the Chief Engineer authorized as provided therein.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, the order adopted, and the Chief Engineer authorized as provided therein.

The following is

THE REPORT:

"CHICAGO, April 30, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Under the supplemental

agreement of April 4th last with the Qualey Construction Company on Section Five (5) the Engineer has no discretion left him as to the disposal of the excavated material, which under that agreement must be deposited on the northerly side of the Main Channel not nearer to the northerly edge than 400 feet. There is a slough on the southerly side of the channel which ought to be filled, as the water standing in it tends to increase the danger of the sliding of the south side of the channel.

I therefore ask authority to cause this slough to be filled if it can be done without extra cost to the District.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Enqneer."

The following is

THE ORDER:

"WHEREAS. The Chief Engineer has asked for such a modification of the restrictions covering the disposition of material on Section 5 as will admit of spoiling on the southerly side of the channel enough excavated material to fill the marsh which extends for several hundred feet along the line of the channel between it and the Illinois and Michigan Canal, and has given reasons why the said filling will be of advantage to this District; therefore, be it, and it is hereby

*Ordered*, That the Chief Engineer be authorized and directed to cause the said marsh to be filled with material excavated from the Main Drainage Channel of this District, provided however that the said filling shall be made free of any and all cost to this District other than the price stipulated to be paid for excavation and deposit in spoil banks."

REPORT ON PAMPHLET HISTORY OF DISTRICT.

The Clerk presented a report from the Chief Engineer, transmitting a brief statement for publication as a pamphlet history of the District, and recommending that the same be printed and published; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and, with enclosure, placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to have the accompanying pamphlet printed and published.



On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and with enclosure placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to have the accompanying pamphlet printed and published.

The following is

THE REPORT:

“CHICAGO, May 2, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago :*

GENTLEMEN—Owing to the many calls upon me for information in regard to the work we have in hand, I constantly feel the need of a concise description of the enterprise and the method involved in its execution. I have endeavored to meet this want in the statement which I submit herewith, a statement with which most of you are familiar. I ask that five thousand copies of this statement be printed for general distribution, to accompany the small maps and illustrations which have proven so useful and popular.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.”*

(Enclosing pamphlet.)

PAYMENT FOR SPECIAL RIGHT OF WAY  
SERVICES IN WILL COUNTY.

The Clerk presented a report from the Attorney, making requisition for the employment of John W. Nadelhoffer at a salary of \$125.00 per month, as special right of way man in Will County, and transmitting voucher (\$187.50) for services already rendered by him since March 15, 1894, and recommending the payment of the same; and the report was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed, and placed on file, the recommendations made therein concurred in, and the enclosed voucher (\$187.50) ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report

adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying voucher (\$187.50) ordered paid.

The following is

THE REPORT:

“CHICAGO, May 2, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago :*

GENTLEMEN—I found it necessary several weeks since, in connection with right of way work in Will County, to employ some one to assist in the preparation for trial of condemnation cases in that County. I consulted with the members of the Judiciary and Finance Committees as well as with some of the other Trustees and it was deemed advisable to employ Mr. John W. Nadelhoffer at a salary of \$125.00 per month, this to include all of his expenses. For various reasons it was not thought best to make a requisition on the Board at that time for the employment of Mr. Nadelhoffer, and I took the responsibility of employing him without first getting the authority of the Board. He commenced work on March 15th and has been working for the Board since that date. I enclose herewith a bill amounting to \$187.50 for his services to May 1st, 1894, and would recommend its payment.

I would also make requisition for his employment at the same rate, at the option of the Board, and would recommend that hereafter he be placed on the regular Joliet roll.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
*Attorney.”*

(Enclosing bill.)

MONTHLY REPORT FROM SANITARY INSPECTOR.

The Clerk presented a report from the Sanitary Inspector for the month of April, 1894; and the report was read.

Mr. Boldenweck, seconded by Mr. Gilmore, moved that the report be ordered printed and referred to the Committee on Health and Public Order.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

THE REPORT:

“CHICAGO, May 2, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago :*

GENTLEMEN—We have had during the

month of April but one case of small-pox on the entire line. This is the most favorable showing that we have been able to make during the last four months, and encourages me in the belief that the most dangerous time is past with us as regards this most dreaded of diseases. The general health of the men in the various camps has been most excellent. This I consider very fortunate when I think of the inefficient arrangements that exist in regard to the hospital facilities for the care of the men in case of sickness or injury. The plan for a hospital and the method of conducting the same, as formulated by myself a year ago, has never, I regret to say, been carried out according to the high standard at that time devised. I was led to believe that the party who was to manage the enterprise had the majority of the contractors with him, but this proved to be incorrect, as he only succeeded in getting three of them and has never succeeded in obtaining the co-operation of the others, which is absolutely necessary in order for the successful working of the system.

This has been a great disappointment to myself personally, as I was in hopes that we would have a service that would be a credit to the District, but lack of means and of a great many other essentials that must be possessed by the party who successfully conducts an institution of this kind, has rendered the enterprise a failure, and I find that I have got to make a radical change in the present method of conducting the hospital service all along the line, as the way in which it is managed at present is miserably inefficient. I find that most of the camps exact fifty cents a month from each of the laborers for hospital fees. In consideration of this, they are visited in the bunk house when sick, and if too sick to remain in camp, are railroaded to Joliet or Chicago. None of the physicians that contract to do this work are provided with an ambulance to transport the men in a proper manner, with the exception of Dr. Re, of Mt. Forest. I do not hesitate to condemn the whole service, as I have witnessed its workings, and I do not think it is right to tax men for hospital dues unless better service is provided than I have yet seen.

The plan of sending the men to Chicago or Joliet when they are sick is all wrong; every man taken sick or meeting with an accident on the works should be cared for in a hospital provided for them on the line, and he should be taken to the hospital in an ambulance, not dumped into a wagon and carried there as is the style of doing it at present. This matter could be all arranged and a system in-

augurated that would be satisfactory to all concerned if the various contractors would co-operate to maintain a hospital of our own, and from what I can learn, they as a rule desire it if the proper man can be secured to successfully conduct it, and this I think that I have succeeded in finding and feel confident that in a short time there will be nothing to complain of in this respect.

Most respectfully submitted,

(Signed) WILLIAM MARTIN, M. D.  
*Sanitary Inspector."*

#### MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of April, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT :

"Balance on hand at date of last report.....	\$2,473,268.59
Received from Thos. F. Judge, Clerk, for General Account. (rent from Heldmaier & Neu).....	120.00
Received from West Town Collector, Tax Account.....	67,652.18
Received from South Town Collector, Tax Account.....	172,625.25
Received from North Town Collector, Tax Account.....	33,405.06
Received from National Bank of Illinois, interest for April.....	669.00
Received from Ft. Dearborn National Bank, interest for April.....	733.35
Received from Metropolitan National Bank, interest for April.....	835.06
Received from American Trust and Savings Bank, interest for April.....	34.51
Received from Chicago National Bank, interest for April.....	759.90
Received from Globe National Bank, interest for April.....	1,105.78
	<hr/> \$277,940.09
Total cash received for month.....	\$2,751,208.68



Total cash disbursed during month as per annexed schedules, viz:

Clerical Department....	\$903.50	
Treasury Department..	166.67	
Engineering Departm't.	13,598.94	
Engineering—Construction—Department....	288,578.26	
Law Department.....	4,669.09	
Law Department—Land Account.....	75,733.00	
General Account.....	5,765.64	
Police Department.....	4,802.91	
Bond Interest and Premium Account.....	47,500.00	
		\$441,718.01

Balance this date, in banks as per schedule endorsed hereon ..... \$2,309,490.67

(Signed) MELVILLE E. STONE,  
Treasurer.

CHICAGO, May 2, 1894."

#### SCHEDULE:

Fort Dearborn National Bank.....	\$406,122.08
National Bank of Illinois.....	406,962.61
Chicago National Bank.....	405,638.08
Metropolitan National Bank.....	508,859.95
American Trust and Savings Bank.....	21,003.79
Globe National Bank.....	560,904.16
Total.....	\$2,309,490.67

#### SUPPLEMENTAL BOND OF E. D. SMITH & CO. ON SECTION D.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, transmitting a supplemental bond in the sum of \$75,000, given by Messrs. E. D. Smith & Company, on Section D, in addition to the original bond on said section; and the report was read.

Mr. Eckhart, seconded by Mr. Russell, moved that the report be adopted, ordered printed, and, with enclosed bond, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosed bond, placed on file, and the recommendations made in the report concurred in.

The following is

#### THE REPORT:

"CHICAGO, May 2, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Your Committee on Fi-

nance herewith transmits a bond in the sum of seventy-five thousand (\$75,000) dollars, given by Messrs. E. D. Smith and Company on Section D of the Main Channel, the same being a supplemental bond, given in addition to the original bond filed by said contractors with the contract for said Section.

Your Committee respectfully recommend that the said bond be approved and ordered placed on file.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

W. H. RUSSELL,

THOMAS KELLY,

Committee on Finance."

(Enclosing completed supplemental bond.)

#### AWARDING OF BIDS AND COMPLETION OF CONTRACTS ON SECTIONS N AND O.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, recommending the awarding of contracts to the lowest bidders of April 18, 1894, as provided in the report, for the work on Sections N and O of the Main Channel, and recommending that the checks of all the unsuccessful bidders on said sections be returned, and transmitting, in duplicate, the amended forms of the contract for the work on said sections, the same being executed by said lowest bidders; and the report was read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed, and, with enclosed contracts, placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to return the checks of unsuccessful bidders on Sections N and O, as set forth in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosed contracts, placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to return the checks of unsuccessful bidders on Sections N and O, as set forth in the report.



The following is

THE REPORT, WITH ACCOMPANYING CON-TRACTS.

"CHICAGO, May 2, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance have considered the bids on Sections N and O, received April 18, 1894, and referred to this Committee for consideration. The bids for this work were received on alternative plans, one for spoiling on the right of way of the Main Channel and the other for removing the spoil by the contractor and disposing of it as he saw fit.

The numerous streets and railroads crossing this part of the canal, the probabilities of being compelled to build adjuncts on that part of the Main Channel covered by these sections, and the certainty that in the near future the channel here will have to be enlarged, have forced the Trustees to the opinion that the best interests of the District require the acceptance of the bids for removal of the spoil from the right of way.

The Finance Committee, acting as a sub-committee, have received full statements in writing in regard to resources and experience of all the bidders whose prices were sufficiently low to warrant consideration and who bid on removing spoil from the right of way, and said bidders have been examined orally in regard to experience, capital, proposed methods of work and all other matters required to form a proper judgment in making awards for the best interests of the District.

Since advertising for this work, it has become evident that the question of obtaining a crossing through and under the railroad tracks of the joint right of way of the railroads near Western avenue was a very serious one, and that it would perhaps be impossible to settle this question for several months to come. Said railroad companies already have a swing bridge over the West Branch of the South Fork and they object very seriously to placing another swing bridge over the channel in such close proximity. By doing away with the swing bridge over the West Fork it is understood that no objection will be raised to the one proposed over the Main Channel.

The Chief Engineer has proposed a plan which greatly facilitates the solution of the problem. He proposes to build a

subsidiary channel between the Main Channel and the West Fork at some convenient point west of said railroads, thus giving to all the property owners along the Ogden ditch a direct navigable opening into the Chicago river through the Main Channel.

The Ogden ditch west of Western Avenue is not practically navigable at the present time owing to a rock bottom and a small depth of water. The lowest bidder for the work on Section N, in conjunction with the contractor for Section O, is willing to remove so much of this rock as will accommodate dredge scows, and without expense to the District, provided the cross channel between the West Fork and the Main Channel is made as above suggested.

The advantage of this cross channel is apparent in facilitating the work on the western end of Section O and in giving early and direct access to Section N. Three working faces will thus be provided by which to excavate these two sections; otherwise, an attempt to complete both sections from one end and within the time of the contract would be very difficult.

The McMahon & Montgomery Company has expressed its willingness to enter upon the excavation of Section O in conformity to the plan herein outlined and conjointly with Hayes Bros. to remove so much of the ledge of rock in the West Fork of the river as may be necessary. These contractors have furthermore agreed to co-operate so that the active prosecution of work on Section N shall not be embarrassed.

A question has arisen as to the strict formality of the bid of the Green's Dredging Company, but as the McMahon & Montgomery Company have expressed its willingness to accept the equivalent of the prices bid by the Green's Dredging Company as figured on the Chief Engineer's quantities, viz.: 21 cts. per yard for the Main Channel and 19.9 cts. per yard for the cross channel, the District receives the benefit of the lowest bid, and furthermore, as the Green's Dredging Company is willing to join in the contract and sign the same, all contests are happily averted.

In view of the fact that the work on these two sections is so intimately connected as to make it expedient to work them conjointly, or in harmony with one another, your Committee has reached the conclusion that on the whole it will be for the best interests of the District, and they accordingly so recommend that

the contracts for said work be let as follows:

Section N to Hayes Brothers at the price of their bid.

Section O to McMahon & Montgomery Company at the price equivalent to the bid of the Green's Dredging Company, same being the lowest bid.

The lowest bid for Section N as above recommended is at the rate of 23 cts. per cubic yard.

The lowest bid for Section O was at the rate of 19.9 cts. per yard for the material removed, and 24 cts. per yard for that used for grading and other purposes on the section. The Chief Engineer estimates that 1,103,753 cubic yards are to be removed and 425,000 cubic yards retained on the section; which gives substantially the equivalent price of 21 cts. per yard for the entire work. The cross channel is to be executed at the rate of 19.9 cts. per yard, the amount being 132,611 cubic yards.

Both the McMahon & Montgomery Company and Hayes Brothers wish to associate with them for the work on their respective sections, the Fitz-Simons & Connell Company, Green's Dredging Company and Chicago Dredging and Dock Company, and said three Companies are willing to sign the respective contracts. Your Committee recommend that they be allowed to do so, as it will be additional security for their execution.

The contracts duly signed by the parties interested in these sections are submitted herewith for approval. All necessary stipulations have been entered therein in relation to the construction of the cross channel, the removal of the rock ledge at Western Avenue, and proper co-operations on the part of the contractors for these two sections.

The bidders to whom awards are made should be notified to furnish bonds at once, and meantime the Finance Committee should be instructed to consider the sufficiency of the bonds that may be submitted.

The Clerk should be instructed to return the checks of unsuccessful bidders on Sections N and O.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.

B. A. ECKHART,  
WM. BOLDENWECK,  
THOMAS KELLY,  
W. H. RUSSELL,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(Accompanied by two (2) signed contracts.)

# CONTRACTS:

## "The Sanitary District of Chicago:

Contract and specifications for Sections "N" and "O" of the Main Drainage Channel between the north and south center line of Section 35, Township 39 north, Range 13, East of the Third Principal Meridian, in Cook County, Illinois, and the center of Robey street in the City of Chicago.

*This Agreement*, made and entered into this.....day of.....A. D. 1894, by and between the Sanitary District of Chicago, of the first part, and Hayes Brothers, McMahon & Montgomery Co., Green's Dredging Co., The Fitz-Simons & Connell Co., and The Chicago Dredging & Dock Co., of the second part.

A—

*Witnesseth:* That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part, by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all materials, tools, explosives, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete excavation and entire removal of earth, rock, glacial drift and other material, from that portion of the said Main Drainage Channel, known and distinguished by the specifications herein contained, and the plans accompanying them, as Section "N," together with the building of all collateral works, which, by the terms of this contract, are included in the same. Said section to be entirely completed and prepared ready for inspection as provided for in Section 27 of an act of the Legislature of the State of Illinois, entitled "An Act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers," approved May 29, 1889, in force July 1, 1889.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of



the Sanitary District of Chicago, and such assistants, superintendents and inspectors as the Chief Engineer may appoint, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his assistants and inspectors shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit, and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Whenever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago as represented by the Board of Trustees or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties entrusted to them.

Whenever the word "Contractor" is used herein it shall be understood to mean the person or persons, or copartnership or corporation entering into the contract as party of the second part.

The maps, plans and profiles hereto attached are made part of this contract, but are subject to such modifications as are herein provided for.

#### SPECIFICATIONS.

D—

1—*Location*—The work covered by and included in these specifications is the excavation of that part of the Main Drainage Channel and the building of certain collateral works for the Sanitary District of Chicago lying between the north and south center line of Section 35, Township 39 North, Range 13 East of the Third Principal Meridian, in Cook County, Illinois, and the center of Robey street in the City of Chicago. Beginning near the center line of said Section 35 the said part of

the said Main Drainage Channel is located approximately 663 feet northwest-erly of and parallel to the north reserve line of the Illinois and Michigan Canal, as shown on accompanying plan marked No. 1 and as located by the Chief Engineer. The total approximate length of the excavation is 11,540 feet, or about two and two-tenths miles.

2—*Sections*—For the purpose of conveniently designating different sections of the work and of dividing it into contracts, the said part of the Main Drainage Channel shall be divided into sections as follows: Section "N," extending from the station designated 154+23 (which station is also the westerly end of Section M) on the west line of the right of way of the Atchison, Topeka and Santa Fe Railroad Company in Chicago to the south line of the right of way of the Chicago, Madison and Northern Railroad Company in Chicago at a point designated as Station 109+17. Section "O," extending from the Station designated 109+17 to the center line of Robey street designated as Station 38+89.

3—*Grade*—The grade line at the bottom of said Main Channel at the station designated 154+23 shall be at an elevation of 24.736 feet below the datum established by the Illinois and Michigan Canal Trustees in 1847, and shall slope thence uniformly upward at the rate of 0.025ths of a foot vertical to 1,000 feet horizontal to the end of the excavation at the station designated 38+89, where it shall have an elevation of 24.448 feet below datum.

The Sanitary District reserves the right to change said grade by raising or lowering it, or by increasing or decreasing the slope, thereby increasing or decreasing the amount of excavation; provided, that said change shall in no wise affect the terms of this contract as to price, or entitle the said contractor to any compensation additional to the rate fixed by this contract, or render the Sanitary District liable for any damages whatsoever, direct or indirect. Provided, further, that the said change shall in no place affect the grade by an amount exceeding four (4) feet; and that the Sanitary District shall notify the said contractor of any such change before any portion of said channel shall have been finished in conformity to the grade as hereinbefore specified.



4—*Dimensions of Cross Section*—The width of the channel at bottom shall be one hundred and ten (110) feet and the sides shall rise at the rate of one (1) foot vertical to two (2) horizontal, as shown on Plan 3.

5—*Clearing and Grubbing*—The contractor will be required to remove all trees stumps, buildings, piles and docks, fences, or other incumbrances within 200 feet of the center line of the channel, or that may be in the way of any collateral or subsidiary work herein specified. All such material of value, except such as the Sanitary District may elect to retain, shall be the property of the contractor, and all worthless material shall be disposed of as directed by the Chief Engineer. The cost of this work shall be included in the prices for excavation as hereinafter stated.

6—*Levee*—The said contractor shall build at his own cost and expense all or any levees which may be necessary to protect the work provided for in this contract, during the progress of the same and, said levees shall be built and maintained so as to exclude water from the Main Channel until such time as said work shall be accepted by the District. Should the character of any levee be insufficient in the judgment of the Chief Engineer, the same shall be made adequate as the Chief Engineer may direct, but any damage that may occur from flooding, either before or after the building of any levee, shall be borne by the said contractor. The levees shown on Plan "1" are to be undertaken immediately, and completed as soon as practicable. The main levee is to be continuous throughout Sections "N" and "O" as far as the Pan-Handle R. R. bank, and is to be located in the main parallel to the Main Channel, and along or near the northerly boundary of the right of way as shown on plan, and as same shall be located by the Chief Engineer. Said levee is to have a height of sixteen (16) feet above datum at the west end of Section "N," and shall descend uniformly to a level of twelve (12) feet above datum at the Pan-Handle R. R., and it shall have a width of fifteen (15) feet at top and side slopes of two (2) to one (1), and be watertight and in every respect so constructed as to make a substantial and durable levee.

7—The contractors for Section "N" shall not excavate or remove the westerly one hundred feet of the prism of the channel on

that section, until ordered so to do in writing by the Chief Engineer of the first party. But when so ordered they shall proceed at once to complete the excavation of the said westerly one hundred feet subject to all the terms and conditions of the contract.

And should it prove necessary or desirable to unwater the channel for purposes of inspection after the same shall have been completed, the contractor shall do the same without additional cost and as the Chief Engineer may direct.

7a—The contractor shall, after building any levees that may be required, building any embankments which may be ordered for streets or railways as hereinafter provided, and filling in excavations heretofore made adjacent to the line of said Main Channel to such height as may be determined and ordered by the Chief Engineer, remove any and all surplus material entirely from the right of way and lands of the Sanitary District, and dispose of the same as he may see fit; and he shall remove all such surplus material before the date agreed upon for the completion of this contract; provided, that there shall be reserved and placed on the right of way, material suitable for brick-making in such amount as may be directed by said Sanitary District; but the contractor shall not be required to take clay for this purpose below Chicago datum.

And further, it is understood and agreed that no work shall be done upon any portion of the line covered by this contract which in the judgment of the Chief Engineer should be kept free and unincumbered, pending the adjustment of any question or questions affecting the relations of this district with the municipality of Chicago, the Board of Park Commissioners, or any railway company or corporation, growing out of the readjustment of streets, highways, boulevards, or railway tracks, until such time as the said Chief Engineer shall in writing order the contractor to proceed upon the portions exempted as above.

8—*Drainage*—The contractor is to provide all pumping machinery and operate the same at his own cost and expense during the time of excavation, and until the whole work is fully completed and inspected, as provided for in other sections of this contract. The contractor shall not dispose of nor make use of any water, nor otherwise conduct his work in such manner as

to interfere with the operations of other contractors for the Sanitary District.

9—*Classification of Material*—All material excavated under the provisions of this contract is to be classified as excavation.

10—*Quantity and Quality of Material*—A longitudinal section of the ground, made approximately on the center line of the Main Channel, is shown on Plan "2." This section, though believed to be reasonably correct, does not purport to be absolutely so, and is only presented as an approximation, as is also the schedule of quantities attached as an appendix thereto. The contractor is to take all risk as to the variation of the total quantity of material excavated. Plan "2" shows approximately the position of test pits made by the Sanitary District, together with an abstract of the notes of the inspector of the pits. The full notes of the inspector are on file at the office of the Sanitary District, and may be examined by bidders under the supervision of the Chief Engineer. Beyond these exhibits the Sanitary District has no knowledge of the character of the material to be encountered, and bidders must satisfy themselves by investigations made on their own account. Wherever the standard cross-section shown on Plan "3" is enlarged through the displacement of the material of the sides thereof, the same shall be paid for at the prices named herein and to the extent that the finished cross-section is actually and necessarily enlarged; *provided*, that said displacement is unavoidable, and is such as is due to the nature of the material, and occurred through no fault or dereliction of the contractor.

And further, whenever and wherever, in the judgment of the Chief Engineer, it shall be necessary or proper to enlarge the cross-section of the Main Channel, or to excavate a basin or basins adjacent thereto, then, upon written orders from the Chief Engineer, the contractor shall make the excavations so ordered in accordance with plans, stakes, lines and instructions to be given therefor, and he shall be paid for making such excavations the price per cubic yard agreed upon for excavating the Main Channel.

11—*Highways*—All public roads or streets now open and in actual use by the public crossing or lying adjacent to the Main Channel, shall be kept open and unobstructed during the progress of the work.

No interference with any such public road or street will be allowed, until a temporary or permanent road or street has been provided, under the direction of the Chief Engineer, which will permit safe and free travel. No interference will be allowed with any railway until such time as other and proper provision for the operation of such railway has been made under the direction of the Chief Engineer.

The Chief Engineer may require the contractor to grade a roadbed at or near the site of any existing roadway, street or railway that crosses the line of the Main Channel, with material from the Main Channel; provided the width shall not exceed eighty (80) feet and the height twenty-eight (28) feet above datum, and that said grading shall not extend over five hundred (500) feet from the center line of Main Channel measured along said roadbed. If the Chief Engineer shall require the contractor to grade any additional roadbed for any purpose, it shall be paid for as provided under the head of extra work.

The Sanitary District reserves the right to permit one contractor to pass over or across the contract section of another for the purpose of transporting material or machinery to his own section; provided, that such passage shall be under the direction and control of the Chief Engineer, and shall be made at such times and in such manner as not unnecessarily to interfere with the work on the section so passed over.

12—*Bridges and Structures*—The Sanitary District reserves the right through its agents or contractors to enter upon the said Main Channel and right of way, at any time and place, after or before the excavation has been completed, for the purpose of erecting or preparing for the erection of any bridge or bridges, or the building of any road, railway or other structure, provided that such work of erection or preparation therefor shall not unreasonably or unnecessarily interfere with the contractor in carrying out the provisions of this contract. To this end the contractor shall make, or permit to be made, at the expense of the Sanitary District, such changes in his plant as in the opinion of the Chief Engineer may be necessary. Said contractor shall also, at the option of the District, and under the direction of the Chief Engineer, make any necessary excavation in or adjacent to the Main Channel,



and do any necessary grading that may be required for the building of any structure, the same to be paid for as provided under the head of *extra work*.

13—*Explosives*—The contractor is to furnish all explosive compounds for blasting the material provided to be excavated under this contract; and, whereas, the storing, handling and use of explosive material requires the utmost care and discrimination, it is therefore understood and agreed that the said contractor shall arrange for the storage of all explosive materials at a distance not less than six hundred feet from the work, or from any other magazine, or from any dwelling occupied for a habitation, and that not more than five thousand (5,000) pounds shall be kept in one place. It is further understood and agreed that said explosive material shall in no case be brought onto the work except when needed for the purpose of charging the blast holes, and then only in such quantity as is needed for the particular work in hand, and that none but skilled and careful men shall be employed in the handling or use of said explosives, and that no liquid explosive shall be used.

It is further understood and agreed that the ground surrounding all magazines shall be kept free of vegetable or combustible material for a radius of one hundred feet, and that their walls shall be made bullet proof, to a height of one foot above the contained explosives, and that in no case shall they be made of brick or stone. It is also understood and agreed that such signals of danger, as may be directed by the Chief Engineer, shall be given or displayed before the firing of any blast, and that the said contractor shall conform his acts to and obey all rules and regulations relative to the handling of explosives and the firing of blasts, for the protection of life or property, which may be made by the Chief Engineer from time to time.

14—*Measurement*—Measurement for all excavated material will be made in excavation by the cubic yard of twenty-seven (27) cubic feet, based upon the survey and cross-section notes of the Chief Engineer.

The prices given herewith are to include all work herein specified, as clearing and grubbing, levees for protection, pumping, roadways for working, and generally all work and material found necessary in

prosecuting this contract, including the removal of piles and docking.

15—*Extra Work*—All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Chief Engineer at the time such labor or material are furnished, or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which the price is fixed by this contract.

Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Chief Engineer shall fix such prices for the work as he shall consider just and equitable, and the contractor shall abide by such prices; provided he enters upon such work with full knowledge of the prices so fixed by the Chief Engineer, but if the contractor declines executing said work at the prices fixed by the Chief Engineer, then the Sanitary District may enter into contract with any person or persons for its execution, the same as if this contract had never existed; and if extra work, or work not provided for in this contract, is performed by the contractor before prices have been fixed for such work, then the Chief Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept of said prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with 10 per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

16—*Responsibility of Contractor*—All the work provided for in this contract is to be done in a skillful and workmanlike manner, under the direction and supervision of the Chief Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and



grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Chief Engineer to properly give lines and grades, and to measure the work from time to time.

All work will be subject to inspection by the said Chief Engineer and his said agents, and if not in accordance with the requirements of this contract, it is to be made good by the contractor.

The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to assign or sub-let all or any part of it, it being distinctly understood and agreed that the assigning or sub-letting of the work covered by this contract, or any part thereof, shall work a forfeiture of the contract at the option of the Sanitary District.

The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case there is a substantial failure on the part of the contractor to comply with the provisions of this contract as to progress and character of the work, or to comply with the provisions of this contract in regard to giving bonds for the performance thereof, the party of the first part may declare this contract forfeited, and in such case the reserve of 12½ per cent. herein provided for, and any other retained percentage, shall be forever retained by the said party of the first part as liquidated damages for such failure of second party to so prosecute or complete said work.

17—*Changes in Plan*—In addition to the reservations hereinbefore made, the Sanitary District reserves the right to make alterations in the line, grade, plan, form, dimensions, or materials of the work herein provided for, either before or after the beginning of construction; provided, that if alterations are made, the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of the work to be done they shall not constitute a claim for damages, or for

anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of any change of plan must be given the contractor in writing. And it is expressly agreed that no alterations, or additions, or extra work are to be paid for unless directed in writing.

18—*Tools*—The contractor is to furnish all the tools of every kind and description, including pumps, cars and track, necessary to the full and complete carrying out of this contract, and on the completion of the work is to remove all tools, buildings and material of all kinds from the right of way of the Sanitary District.

19—*Precautions*—Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, or which in the judgment of the Chief Engineer shall be necessary, shall be taken by the contractor.

20—*Workmen*—The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Chief Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

And, further, the contractor shall provide and employ, upon the order of the Chief Engineer, men, teams, tools, and machinery suited to the work, in such number and quantity as may, in the judgment of the said Chief Engineer, be necessary for carrying on and completing the works in conformity with the time limit stated by this contract. And further, it is understood and agreed that the Chief Engineer may order the prosecution of any particular portion of this work which, in his judgment, needs special expedition, and it shall be so done as directed by him.

E—

*Damages*—If any damage shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands or to any property adjoining, or in the vicinity of the work herein contracted, to be done, or to a neighboring

contractor, for which the contractor herein is legally liable, the Chief Engineer shall have the right to estimate the amount of said damage and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damage shall be deducted from the money due said contractor under this contract.

Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or his employes, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any injuries or damages received or sustained by any person or persons by or from said contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any failure or negligence in guarding or protecting the same; or by or on account of any act or omission of said contractor, his agents or employes; and the said contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suits or claims for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the Board of Trustees.

F—

*Sanitary District Law*—The said contractor hereby agrees to carry on all the work provided for in this contract, in strict conformity to the requirements of the law under which the Sanitary District of Chicago is organized, entitled "An act to create Sanitary Districts and to remove obstructions from the Desplaines and Illinois Rivers;" approved May 29, 1889, in force July 1, 1889, which provides in Section 11, among other things, that "No person shall be employed on said work unless he be a citizen of the United States or has in good faith declared his intentions to become such citizen. In all cases where an alien after making his declaration of intention to become a citizen of the United States shall, for the space of three months after he could lawfully do so, fail to take out his final

papers and complete his citizenship, such failure shall be *prima facie* evidence that his declaration of intention was not made in good faith; and that eight hours shall constitute a day's work."

G—

*Time*—The contractor agrees to begin work within fifteen days after the execution of this contract. He agrees to carry it on at such points and in such order of procedure, as the Chief Engineer may direct.

All the Main Channel work provided to be done under this contract shall be completed and ready for inspection on or before the 31st of May, of the year 1896. All levee work to be completed on or before October 1, 1894.

The work done each month shall not be less than such proportion of the whole work as one month bears to the total number of months agreed upon for the completion of said work, provided that the time from the date of this contract to June 1, 1894, shall be considered as one month, and the last two months before date of completion, as one month; and, provided further, that this rate shall not be required if, at any time, the aggregate work done exceeds the total proportion due to the time that has passed since May 1, 1894; and always provided that the Sanitary District shall not be obligated to make payment in excess of the above monthly proportion; and said May 1, 1894, is hereby fixed as the date from which all progress estimates shall be made.

H—

*Price*—In consideration of the said work being carried on and completed in time and manner as specified, the said party of the first part agrees to pay to the said party of the second part, and the said party of the second part agrees to receive and accept as full compensation therefor, including the furnishing by him of all necessary materials, tools, labor, machinery and appliances:

For each cubic yard of excavation, disposed of as provided in paragraph 7a, twenty-three one-hundredths (\$0.23) dollars.

I—

*Time and Manner of Payment*—It is



agreed by the party of the first, that on or before the 10th and the 25th days of each month, during the progress of the work, and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of  $87\frac{1}{2}$  per cent of the contract price of the approximate amount of work done during the previous half month, upon written certificates from the Chief Engineer that such approximate amount of work has been done during that period,  $12\frac{1}{2}$  per cent being reserved until the completion and acceptance of the whole work, provided the work has been done in all particulars in conformity with this contract, and to the satisfaction of the Chief Engineer.

J—

*Grading of Prices*—It is hereby agreed by the said party of the second part that if his manner of conducting the work is such that at the time of making any progress estimate a markedly greater proportion of the top material has been excavated than of the bottom material, then the Chief Engineer shall in making such estimates, ascertain what amount has been excavated up to that time of any material lies above, and what below, a horizontal plane dividing the mass of said class of material into equal parts; and if the upper portion exceeds the lower, then the total amount of material found to have been excavated previous to the time of making the estimate shall be reduced by 10 per cent of said excess, and estimates or certificates issued on the remainder, with the percentage deductions provided for in the preceding Section I.

K—

*Certificate*—On all the work provided for in this contract being completed, in accordance with the contract, and to the full satisfaction of the Chief Engineer, and on its being inspected by him and a certificate made by him setting forth the amount of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said second party by the said certificate of the said Chief Engineer, including the  $12\frac{1}{2}$  per cent reserve.

L—

*Failure to Complete*—It is further agreed

by the said party of the second part that if the work to be done under this contract shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or, if at any time the Chief Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not executing said contract in good faith, the said party of the first part shall have the power to notify said contractor to discontinue all work, or any part thereof, as may be designated by said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as the said Chief Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing said Chief Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work shall be charged to the said contractor, and any moneys that may then be due, or may at any time thereafter become due to said contractor under and by virtue of this contract, shall be applied by first party to the payment of such cost, so far as same shall suffice therefor, and the remainder of the cost of so completing said work, if any shall be paid by said contractor to first party on demand.

M—

*Payment of Laborers*—Said contractor shall pay the laborers employed by him promptly at regular intervals, and at least twice each month, and shall not pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States. And if at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed, and in manner aforesaid, or for material furnished upon said work, then the party of the first part shall have power to pay for



such labor or such material out of any money or moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor.

In any such case the party of the first part is hereby authorized and empowered by the said party of the second part to ascertain the amount or amounts due or owing from said contractor to any laborer or laborers, or to any person for material furnished, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said contractor, and the amount or amounts so found by said party of the first part to be due and owing to said laborer or laborers, or to said material men, shall be final and conclusive as against said contractor, and may hereafter be paid over by the said first party to such laborer, or laborers or material men.

N—

*Contractor's Bond*—The contractor shall furnish a bond in the sum of seventy-five thousand (\$75,000) dollars, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract, and should the sureties on said bond at any time fail financially, or be, in the opinion of said Board of Trustees, insufficient security for the penalty of said bond, then in that case, they may, on giving ten days' notice thereof in writing, require said contractor to furnish a new or additional bond in the place of the bond so having become insufficient or worthless.

O—

*Final Payment*—The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as

may be lawfully retained under any of the provisions to this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

P—

*Health Regulations*—Said party of the second part agrees to introduce and enforce among their employes, such regulations in regard to cleanliness, the care of dwellings and premises and the disposition of garbage and offal, as shall conduce to their health and tend to prevent the inception and spread of contagious and infectious diseases among them, to make provision for an ample supply of suitable drinking water, and to take such means as shall effectually prevent the creation of a nuisance on any part of the right of way of said Sanitary District or adjacent thereto, and as may be directed by the Sanitary Inspector of said Sanitary District.

IN WITNESS WHEREOF, on the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President, and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part have hereunto set their hands and seals and caused these presents to be signed by their respective officers thereunto duly authorized, etc."

*"The Sanitary District of Chicago:*

Contract and specifications for Sections "N" and "O" of the Main Drainage Channel between the north and south center line of Section 35, Township 39 north, Range 13, East of the Third Principal Meridian, in Cook County, Illinois, and the center of Robey street in the City of Chicago.

*This Agreement*, Made and entered into this..... day of..... A. D. 1894, by and between the Sanitary District of Chicago, of the first part, and McMahon & Montgomery Co., Hayes Bros., Green's Dredging Co., the Fitz-Simons & Connell Co., and the Chicago Dredging & Dock Co., of the second part,

A—

*Witnesseth:* That the said party of the

second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part, by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all materials, tools, explosives, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete excavation and entire removal of earth, rock, glacial drift and other material, from that portion of the said Main Drainage Channel, known and distinguished by the specifications herein contained, and the plans accompanying them, as Section "O," together with the building of all collateral works, which, by the terms of this contract, are included in the same. Said section to be entirely completed and prepared ready for inspection as provided for in Section 27 of an act of the Legislature of the State of Illinois, entitled "An Act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers," approved May 29, 1889, in force July 1, 1889.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and such assistants, superintendents and inspectors as the Chief Engineer may appoint, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his assistants and inspectors shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit, and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Whenever the words "Sanitary District"

are used in this contract they shall be understood to mean the Sanitary District of Chicago as represented by the Board of Trustees or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties entrusted to them.

Whenever the word "Contractor" is used herein it shall be understood to mean the person or persons, or copartnership or corporation entering into the contract as party of the second part.

The maps, plans and profiles hereto attached are made part of this contract, but are subject to such modifications as are herein provided for.

#### SPECIFICATIONS.

D—

1—*Location*—The work covered by and included in these specifications is the excavation of that part of the Main Drainage Channel and the building of certain collateral works for the Sanitary District of Chicago lying between the north and south center line of Section 35, Township 39 North, Range 13 East of the Third Principal Meridian, in Cook County, Illinois, and the center of Robey street in the City of Chicago. Beginning near the center line of said Section 35 the said part of the said Main Drainage Channel is located approximately 663 feet northwesterly of and parallel to the north reserve line of the Illinois and Michigan Canal, as shown on accompanying plan marked No. 1 and as located by the Chief Engineer. The total approximate length of the excavation is 11,540 feet, or about two and two-tenths miles.

2—*Sections*—For the purpose of conveniently designating different sections of the work and of dividing it into contracts, the said part of the Main Drainage Channel shall be divided into sections as follows: Section "N," extending from the station designated 154+23 (which station is also the westerly end of Section M) on the west line of the right of way of the Atchison, Topeka and Santa Fe Railroad Company in Chicago to the south line of the right of way of the Chicago, Madison and Northern Railroad Company in Chicago at a point



designated as Station 109+17. Section "O," extending from the Station designated 109+17 to the center line of Robey street designated as Station 38+89.

3—*Grade*—The grade line at the bottom of said Main Channel at the station designated 154+23 shall be at an elevation of 24.736 feet below the datum established by the Illinois and Michigan Canal Trustees in 1847, and shall slope thence uniformly upward at the rate of 0.025ths of a foot vertical to 1,000 feet horizontal to the end of the excavation at the station designated 38+89, where it shall have an elevation of 24.448 feet below datum.

The Sanitary District reserves the right to change said grade by raising or lowering it, or by increasing or decreasing the slope, thereby increasing or decreasing the amount of excavation; provided, that said change shall in no wise affect the terms of this contract as to price, or entitle the said contractor to any compensation additional to the rate fixed by this contract, or render the Sanitary District liable for any damages whatsoever, direct or indirect. Provided, further, that the said change shall in no place affect the grade by an amount exceeding four (4) feet; and that the Sanitary District shall notify the said contractor of any such change before any portion of said channel shall have been finished in conformity to the grade as hereinbefore specified.

4—*Dimensions of Cross Section*—The width of the channel at bottom shall be one hundred and ten (110) feet and the sides shall rise at the rate of one (1) foot vertical to two (2) horizontal, as shown on Plan 3.

5—*Clearing and Grubbing*—The contractor will be required to remove all trees stumps, buildings, piles and docks, fences, or other incumbrances within 200 feet of the center line of the channel, or that may be in the way of any collateral or subsidiary work herein specified. All such material of value, except such as the Sanitary District may elect to retain, shall be the property of the contractor, and all worthless material shall be disposed of as directed by the Chief Engineer. The cost of this work shall be included in the prices for excavation as hereinafter stated.

6—*Levee*—If so ordered by the Chief Engineer, the said contractor shall build

at his own cost and expense all or any levees which may be necessary to protect the work provided for in this contract, during the progress of the same and, said levees shall be built and maintained so as to exclude water from the Main Channel until such time as said work shall be accepted by the District. Should the character of any levee be insufficient in the judgment of the Chief Engineer, the same shall be made adequate as the Chief Engineer may direct, but any damage that may occur from flooding, either before or after the building of any levee, shall be borne by the said contractor. The levees shown on Plan "1" are to be undertaken immediately, and completed as soon as practicable. The main levee is to be continuous throughout Sections "N" and "O" as far as the Pan-Handle R. R. bank, and is to be located in the main parallel to the Main Channel, and along or near the northerly boundary of the right of way as shown on plan, and as same shall be located by the Chief Engineer. Said levee is to have a height of sixteen (16) feet above datum at the west end of Section "N," and shall descend uniformly to a level of twelve (12) feet above datum at the Pan-Handle R. R., and it shall have a width of fifteen (15) feet at top and side slopes of two (2) to one (1), and be water-tight and in every respect so constructed as to make a substantial and durable levee.

7—*Collateral Channel*—The contractor shall excavate a channel from the west fork of the south branch of the Chicago River to connect the same with the Main Channel of the Sanitary District, upon such route as shall be hereafter determined and located by the Chief Engineer. The said channel to be excavated to a depth of twelve (12) feet below Chicago datum, to be sixty (60) feet wide on the bottom and to have side slopes of one (1) foot vertical to one foot and one-half ( $1\frac{1}{2}$ ) horizontal. This channel is a collateral work of Section "O" and is subject to all the terms and conditions of the specifications for that section, except as herein modified. For the excavation and removal of the material from this collateral channel, the party of the first part is to pay and the party of the second part is to receive the sum of nineteen and nine tenths (19.9) cents for each and every cubic yard removed. The work on said collateral channel shall be begun as soon as said Sanitary District shall have secured the necessary



right of way therefor and shall have so notified the contractor and shall be prosecuted diligently under the direction of the Chief Engineer, until same is completed.

*7a—West Fork Navigation*—If it should be found that there is not sufficient depth of water or width of channel for the floatage of dredges and barges to be employed in the work, in the West Fork of the South Branch of the Chicago River, between Robey Street and the junction of the proposed collateral channel with the said West Fork, then the second party shall procure such necessary depth and width free of all cost or liability of any kind to the Sanitary District.

The contractor shall, after building any levees that may be required, building any embankments which may be ordered for streets or railways as hereinafter provided, and filling in excavations heretofore made adjacent to the line of said Main Channel to such height as may be determined and ordered by the Chief Engineer, remove any and all surplus material entirely from the right of way and lands of the Sanitary District, and dispose of the same as he may see fit; and he shall remove all such surplus material before the date agreed upon for the completion of this contract.

And further, it is understood and agreed that no work shall be done upon any portion of the line covered by this contract which in the judgment of the Chief Engineer should be kept free and unincumbered, pending the adjustment of any question or questions affecting the relations of this district with the municipality of Chicago, the Board of Park Commissioners, or any railway company or corporation, growing out of the readjustment of streets, highways, boulevards, or railway tracks, until such time as the said Chief Engineer shall in writing order the contractor to proceed upon the portions exempted as above.

And should it prove necessary or desirable to unwater the channel for purposes of inspection after the same shall have been completed, the contractor shall do the same without additional cost and as the Chief Engineer may direct.

*8—Drainage*—The contractor is to provide all pumping machinery and operate the same at his own cost and expense during the time of excavation, and until the whole work is fully completed and inspected, as provided for in other sections of this con-

tract. The contractor shall not dispose of nor make use of any water, nor otherwise conduct his work in such manner as to interfere with the operations of other contractors for the Sanitary District.

*9—Classification of Material*—All material excavated under the provisions of this contract is to be classified as excavation.

*10—Quantity and Quality of Material*—A longitudinal section of the ground, made approximately on the center line of the Main Channel, is shown on Plan "2." This section, though believed to be reasonably correct, does not purport to be absolutely so, and is only presented as an approximation, as is also the schedule of quantities attached as an appendix thereto. The contractor is to take all risk as to the variation of the total quantity of material excavated. Plan "2" shows approximately the position of test pits made by the Sanitary District, together with an abstract of the notes of the inspector of the pits. The full notes of the inspector are on file at the office of the Sanitary District, and may be examined by bidders under the supervision of the Chief Engineer. Beyond these exhibits the Sanitary District has no knowledge of the character of the material to be encountered, and bidders must satisfy themselves by investigations made on their own account. Wherever the standard cross-section shown on Plan "3" is enlarged through the displacement of the material of the sides thereof, the same shall be paid for at the prices named herein and to the extent that the finished cross-section is actually and necessarily enlarged; *provided*, that said displacement is unavoidable, and is such as is due to the nature of the material, and occurred through no fault or dereliction of the contractor.

And further, whenever and wherever, in the judgment of the Chief Engineer, it shall be necessary or proper to enlarge the cross-section of the Main Channel, or to excavate a basin or basins adjacent thereto, then, upon written orders from the Chief Engineer, the contractor shall make the excavations so ordered in accordance with plans, stakes, lines and instructions to be given therefor, and he shall be paid for making such excavations the price per cubic yard agreed upon for excavating the Main Channel.

*11—Highways*—All public roads or

streets now open and in actual use by the public crossing or lying adjacent to the Main Channel, shall be kept open and unobstructed during the progress of the work. No interference with any such public road or street will be allowed until a temporary or permanent road or street has been provided, under the direction of the Chief Engineer, which will permit safe and free travel. No interference will be allowed with any railway until such time as other and proper provision for the operation of such railway has been made under the direction of the Chief Engineer.

The Chief Engineer may require the contractor to grade a roadbed at or near the site of any existing roadway, street or railway that crosses the line of the Main Channel, with material from the Main Channel; provided the width shall not exceed eighty (80) feet and the height twenty-eight (28) feet above datum, and that said grading shall not extend over five hundred (500) feet from the center line of Main Channel measured along said roadbed. If the Chief Engineer shall require the contractor to grade any additional roadbed for any purpose, it shall be paid for as provided under the head of extra work.

The Sanitary District reserves the right to permit one contractor to pass over or across the contract section of another for the purpose of transporting material or machinery to his own section; provided, that such passage shall be under the direction and control of the Chief Engineer, and shall be made at such times and in such manner as not unnecessarily to interfere with the work on the section so passed over.

**12—Bridges and Structures**—The Sanitary District reserves the right through its agents or contractors to enter upon the said Main Channel and right of way, at any time and place, after or before the excavation has been completed, for the purpose of erecting or preparing for the erection of any bridge or bridges, or the building of any road, railway or other structure, provided that such work of erection or preparation therefor shall not unreasonably or unnecessarily interfere with the contractor in carrying out the provisions of this contract. To this end the contractor shall make, or permit to be made, at the expense of the Sanitary District, such changes in his plant as in the opinion of the Chief Engineer may be necessary. Said

contractor shall also, at the option of the District, and under the direction of the Chief Engineer, make any necessary excavation in or adjacent to the Main Channel, and do any necessary grading that may be required for the building of any structure, the same to be paid for as provided under the head of *extra work*.

**13—Explosives**—The contractor is to furnish all explosive compounds for blasting the material provided to be excavated under this contract; and, whereas, the storing, handling and use of explosive material requires the utmost care and discrimination, it is therefore understood and agreed that the said contractor shall arrange for the storage of all explosive materials at a distance not less than six hundred feet from the work, or from any other magazine, or from any dwelling occupied for a habitation, and that not more than five thousand (5,000) pounds shall be kept in one place. It is further understood and agreed that said explosive material shall in no case be brought onto the work except when needed for the purpose of charging the blast holes, and then only in such quantity as is needed for the particular work in hand, and that none but skilled and careful men shall be employed in the handling or use of said explosives, and that no liquid explosive shall be used.

It is further understood and agreed that the ground surrounding all magazines shall be kept free of vegetable or combustible material for a radius of one hundred feet, and that their walls shall be made bullet proof, to a height of one foot above the contained explosives, and that in no case shall they be made of brick or stone. It is also understood and agreed that such signals of danger, as may be directed by the Chief Engineer, shall be given or displayed before the firing of any blast, and that the said contractor shall conform his acts to and obey all rules and regulations relative to the handling of explosives and the firing of blasts, for the protection of life or property, which may be made by the Chief Engineer from time to time.

**14—Measurement**—Measurement for all excavated material will be made in excavation by the cubic yard of twenty-seven (27) cubic feet, based upon the survey and cross-section notes of the Chief Engineer.

The prices given herewith are to include



all work herein specified, as clearing and grubbing, levees for protection, pumping, roadways for working, and generally all work and material found necessary in prosecuting this contract, including the removal of piles and docking.

15—*Extra Work*—All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Chief Engineer at the time such labor or material are furnished, or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which the price is fixed by this contract.

Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Chief Engineer shall fix such prices for the work as he shall consider just and equitable, and the contractor shall abide by such prices; provided he enters upon such work with full knowledge of the prices so fixed by the Chief Engineer, but if the contractor declines executing said work at the prices fixed by the Chief Engineer, then the Sanitary District may enter into contract with any person or persons for its execution, the same as if this contract had never existed; and if extra work, or work not provided for in this contract, is performed by the contractor before prices have been fixed for such work, then the Chief Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept of said prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with 10 per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

16—*Responsibility of Contractor*—All the work provided for in this contract is to

be done in a skillful and workmanlike manner, under the direction and supervision of the Chief Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Chief Engineer to properly give lines and grades, and to measure the work from time to time.

All work will be subject to inspection by the said Chief Engineer and his said agents, and if not in accordance with the requirements of this contract, it is to be made good by the contractor.

The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to assign or sub-let all or any part of it, it being distinctly understood and agreed that the assigning or sub-letting of the work covered by this contract, or any part thereof, shall work a forfeiture of the contract at the option of the Sanitary District.

The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case there is a substantial failure on the part of the contractor to comply with the provisions of this contract as to progress and character of the work, or to comply with the provisions of this contract in regard to giving bonds for the performance thereof, the party of the first part may declare this contract forfeited, and in such case the reserve of 12½ per cent. herein provided for, and any other retained percentage, shall be forever retained by the said party of the first part as liquidated damages for such failure of second party to so prosecute or complete said work.

17—*Changes in Plan*—In addition to the reservations hereinbefore made, the Sanitary District reserves the right to make alterations in the line, grade, plan, form, dimensions, or materials of the work herein provided for, either before or after the be-



ginning of construction; provided, that if alterations are made, the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of the work to be done they shall not constitute a claim for damages, or for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of any change of plan must be given the contractor in writing. And it is expressly agreed that no alterations, or additions, or extra work are to be paid for unless directed in writing.

18—*Tools*—The contractor is to furnish all the tools of every kind and description, including pumps, cars and track, necessary to the full and complete carrying out of this contract, and on the completion of the work is to remove all tools, buildings and material of all kinds from the right of way of the Sanitary District.

19—*Precautions*—Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, or which in the judgment of the Chief Engineer shall be necessary, shall be taken by the contractor.

20—*Workmen*—The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Chief Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

And, further, the contractor shall provide and employ, upon the order of the Chief Engineer, men, teams, tools, and machinery suited to the work, in such number and quantity as may, in the judgment of the said Chief Engineer, be necessary for carrying on and completing the works in conformity with the time limit stated by this contract. And further, it is understood and agreed that the Chief Engineer may order the prosecution of any particular portion of this work which, in his judgment, needs special expedition, and it shall be so done as directed by him.

E—

*Damages*—If any damage shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands or to any property adjoining, or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, for which the contractor herein is legally liable, the Chief Engineer shall have the right to estimate the amount of said damage and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damage shall be deducted from the money due said contractor under this contract.

Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or his employes, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any injuries or damages received or sustained by any person or persons by or from said contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any failure or negligence in guarding or protecting the same; or by or on account of any act or omission of said contractor, his agents or employes; and the said contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suits or claims for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the Board of Trustees.

F—

*Sanitary District Law*—The said contractor hereby agrees to carry on all the work provided for in this contract, in strict conformity to the requirements of the law under which the Sanitary District of Chicago is organized, entitled "An act to create Sanitary Districts and to remove obstructions from the Desplaines and Illinois Rivers;" approved May 29, 1889, in force July 1, 1889, which provides in Section 11, among other things, that "No person shall be employed on said work unless he be a

citizen of the United States or has in good faith declared his intentions to become such citizen. In all cases where an alien after making his declaration of intention to become a citizen of the United States shall, for the space of three months after he could lawfully do so, fail to take out his final papers and complete his citizenship, such failure shall be *prima facie* evidence that his declaration of intention was not made in good faith; and that eight hours shall constitute a day's work."

G—

*Time*—The contractor agrees to begin work within fifteen days after the execution of this contract. He agrees to carry it on at such points and in such order of procedure, as the Chief Engineer may direct.

All the Main Channel work provided to be done under this contract shall be completed and ready for inspection on or before the 31st of May, of the year 1896. All levee work to be completed on or before October 1, 1894.

The work done each month shall not be less than such proportion of the whole work as one month bears to the total number of months agreed upon for the completion of said work, provided that the time from the date of this contract to June 1, 1894, shall be considered as one month, and the last two months before date of completion, as one month; and, provided further, that this rate shall not be required if, at any time, the aggregate work done exceeds the total proportion due to the time that has passed since May 1, 1894; and always provided that the Sanitary District shall not be obligated to make payment in excess of the above monthly proportion; and said May 1, 1894, is hereby fixed as the date from which all progress estimates shall be made.

H—

*Price*—In consideration of the said work being carried on and completed in time and manner as specified, the said party of the first part agrees to pay to the said party of the second part, and the said party of the second part agrees to receive and accept as full compensation therefor, including the furnishing by him of all necessary materials, tools, labor, machinery and appliances:

For each cubic yard of excavation, disposed of as provided in paragraph 7a, twenty-one one-hundredths (\$.21) dollars.

For each cubic yard excavated from the Collateral Channel, nineteen and nine-tenths (\$.19.9) cents.

I—

*Time and Manner of Payment*—It is agreed by the party of the first, that on or before the 10th and the 25th days of each month, during the progress of the work, and subject to the provisions heretofore specified under the head of "Time," payment will be made to the said party of the second part to the amount of 87½ per cent of the contract price of the approximate amount of work done during the previous half month, upon written certificates from the Chief Engineer that such approximate amount of work has been done during that period, 12½ per cent being reserved until the completion and acceptance of the whole work, provided the work has been done in all particulars in conformity with this contract, and to the satisfaction of the Chief Engineer.

J—

*Grading of Prices*—It is hereby agreed by the said party of the second part that if his manner of conducting the work is such that at the time of making any progress estimate a markedly greater proportion of the top material has been excavated than of the bottom material, then the Chief Engineer shall in making such estimates, ascertain what amount has been excavated up to that time of any material lies above, and what below, a horizontal plane dividing the mass of said class of material into equal parts; and if the upper portion exceeds the lower, then the total amount of material found to have been excavated previous to the time of making the estimate shall be reduced by 10 per cent of said excess, and estimates or certificates issued on the remainder, with the percentage deductions provided for in the preceding Section I.

K—

*Certificate*—On all the work provided for in this contract being completed, in accordance with the contract, and to the full satisfaction of the Chief Engineer, and on its being inspected by him and a certificate made by him setting forth the amount of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the



said second party by the said certificate of the said Chief Engineer, including the 12½ per cent reserve.

L—

*Failure to Complete*—It is further agreed by the said party of the second part that if the work to be done under this contract shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or, if at any time the Chief Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not executing said contract in good faith, the said party of the first part shall have the power to notify said contractor to discontinue all work, or any part thereof, as may be designated by said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as the said Chief Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing said Chief Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work shall be charged to the said contractor, and any moneys that may then be due, or may at any time thereafter become due to said contractor under and by virtue of this contract, shall be applied by first party to the payment of such cost, so far as same shall suffice therefor, and the remainder of the cost of so completing said work, if any shall be paid by said contractor to first party on demand.

M—

*Payment of Laborers*—Said contractor shall pay the laborers employed by him promptly at regular intervals, and at least twice each month, and shall not pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States. And if at any time during the pro-

gree of said work the said contractor shall fail or neglect to pay for labor performed, and in manner aforesaid, or for material furnished upon said work, then the party of the first part shall have power to pay for such labor or such material out of any money or moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor.

In any such case the party of the first part is hereby authorized and empowered by the said party of the second part to ascertain the amount or amounts due or owing from said contractor to any laborer or laborers, or to any person for material furnished, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said contractor, and the amount or amounts so found by said party of the first part to be due and owing to said laborer or laborers, or to said material men, shall be final and conclusive as against said contractor, and may hereafter be paid over by the said first party to such laborer, or laborers or material men.

N—

*Contractor's Bond*—The contractor shall furnish a bond in the sum of seventy-five thousand (\$75,000) dollars, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract, and should the sureties on said bond at any time fail financially, or be, in the opinion of said Board of Trustees, insufficient security for the penalty of said bond, then in that case, they may, on giving ten days' notice thereof in writing, require said contractor to furnish a new or additional bond in the place of the bond so having become insufficient or worthless.

O—

*Final Payment*—The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such



certificate, pay, and it hereby binds itself to pay the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions to this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

P—

*Health Regulations*—Said party of the second part agrees to introduce and enforce among their employes, such regulations in regard to cleanliness, the care of dwellings and premises and the disposition of garbage and offal, as shall conduce to their health and tend to prevent the inception and spread of contagious and infectious diseases among them, to make provision for an ample supply of suitable drinking water, and to take such means as shall effectually prevent the creation of a nuisance on any part of the right of way of said Sanitary District or adjacent thereto, and as may be directed by the Sanitary Inspector of said Sanitary District.

IN WITNESS WHEREOF, on the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President, and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part have hereunto set their hands

and seals and caused these presents to be signed by their respective officers thereunto duly authorized." etc.

#### CLERK TO RETURN CHECKS OF CERTAIN BIDDERS ON SECTION 1.

Mr. Eckhart presented an order, authorizing and directing the Clerk to return the checks of all the bidders of April 18, 1894, on Section 1, except those of the six (6) lowest bidders for cement masonry on said section; and the order was read.

Mr. Eckhart, seconded by Mr. Cooley, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk authorized and directed to return certain checks deposited with bids on Section 1 as provided in the order.

The following is

#### THE ORDER:

*Ordered*, That that the Clerk return the checks deposited by bidders with their proposals for Section one (1), except the checks of the six bidders who are lowest, estimated on the basis of cement masonry walls."

#### ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

May 2,]

—1931—

[1894.

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES,  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MAY 9, 1894.

**OFFICIAL RECORD.**

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

**REGULAR MEETING.**

The two hundred and twenty-first regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, May 9, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6), and subsequently Mr. Prendergast, making a total of seven (7) members, were present.

**MINUTES.**

The minutes of the regular meeting held May 2, 1894, were approved as

printed, on motion of Mr. Eckhart, seconded by Mr. Boldenweck.

**VOUCHERS.**

The Clerk presented the following vouchers:

**ENGINEERING DEPARTMENT.**

*Construction Account—*

McArthur Bros. (Sec. 2, May 1, 1894).....	\$ 12,009 38
Gilman & Co. (Sec. 3, May 1, 1894).....	6,517 00
McArthur Bros. (Sec. 4, May 1, 1894).....	11,536 38
The Qualey Construction Co., (Sec. 5, May 1, 1894).....	1,220 63
Mason, Hoge & Co., (Sec. 6, May 1, 1894).....	2,764 13
Mason, Hoge, King & Co. (Sec. 8, May 1, 1894).....	17,204 69
Halvorson, Richards & Co. (Sec. 9, May 1, 1894).....	14,827 31



E. D. Smith & Co. (Sec. 10, May 1, 1894).....	\$19,530 00
Mason, Hoge & Co. (Sec. 11, May 1, 1894).....	13,522 03
Mason, Hoge & Co., (Sec. 12, May 1, 1894).....	9,222 72
Mason, Hoge & Co., (Sec. 13, May 1, 1894).....	20,275 94
Smith & Eastman (Sec. 14, May 1, 1894).....	7,906 50
Heldmaier & Neu (Sec. A, May 1, 1894).....	15,052 34
Heldmaier & Neu (Sec. B, May 1, 1894).....	8,062 74
Western Dredging & Improvement Co. (Sec. C, May 1, 1894).....	10,139 58
E. D. Smith & Co. (Sec. D, May 1, 1894).....	21,897 53
Ricker, Lee & Co. (Sec. F, May 1, 1894).....	1,678 08
Gahan & Byrne (Sec. G, May 1, 1894).....	3,269 04
Christie & Lowe (Sec. I, May 1, 1894).....	2,716 87
Christie & Lowe (Sec. K, May 1, 1894).....	413 44
The Heidenreich Co. (Sec. L, May 1, 1894).....	2,016 79
The Heidenreich Co. (Sec. M, May 1, 1894).....	529 75
The Qualey Construction Co. (spoils removed from existing banks Sec. 5, May 1, 1894).....	216 00
A., T. & S. F. Ry. Co., (Santa Fe and Stephens street bridges, fence, Sec. 8, March 31, 1894).....	222 02
Heldmaier & Neu, (Sec. A, extra, completing levee, 692 to 710, May 1, 1894).....	1,458 00
	<hr/> \$204,208 89

## ENGINEERING DEPARTMENT.

Pettibone, Wells & Co. (stationery).....	\$ 17 50
R. R. Donnelly & Sons Co. (printing).....	21 00
Stromberg, Allen & Co. (printing).....	82 90
Eugene Dietzgen Co. (drafting material)...	35 54
F. Mayer & Co. (blue prints).....	66 78
W. A. Olmsted (mounting maps)...	7 85
Chicago Wholesale Picture Co. (frames).....	5 25
W. C. Ritchie & Co. (paper tubes).....	1 50
Board of Canal Commissioners, State of Illinois, (removing bridges).....	350 00
M. G. Paterson, (stenographer).....	3 60
Henry Gebhardt, (drafting table).....	13 75
Gerts, Lumbard & Co. (whisk brooms).....	1 00

John McCaffery (rent, Brighton Park, April, 1894).....	\$25 00
John T. Allison (rent, Summit, March and April, 1894).....	40 00
Mrs. A. M. Munson (rent; Mt. Forest, April, 1894).....	20 00
H. S. Norton (rent, Lemont, April, 1894).....	18 00
O. W. Moon (rent, Lockport, April, 1894).....	20 00
Mary Rusk (gauge reading, April, 1894).....	10 00
Wm. Kirkman (gauge reading, April, 1894).....	10 00
Patrick McGinnis (gauge reading, April, 1894).....	10 00
Geo. Brainard (gauge reading, April, 1894).....	10 00
E. Hastings (gauge reading, April, 1894).....	10 00
Trevor Spring Water Co. (ice).....	18 00
Waukesha Hygeia Mineral Springs Co. (water).....	15 00
Chicago Towel Supply Co. (toweling).....	5 40
Chicago Edison Co. (repairs).....	2 04
John Larney (coal)...	17 50
W. T. Keating (expense).....	22 80
Alex. E. Kastl (traveling).....	18 29
E. R. Shnable (traveling).....	9 31
E. R. Shnable (traveling).....	7 34
Hiram A. Miller (traveling).....	15 93
Chas. L. Harrison (traveling).....	8 65
Ebin J. Ward (traveling).....	5 25
A. C. Schrader (traveling).....	7 94
W. T. Keating (traveling).....	45 38
	<hr/> \$ 978 50

## CLERICAL DEPARTMENT.

Jacobs, Coles & Co. (stationery).....	\$ 1 00
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## LAW DEPARTMENT.

Pettibone, Wells & Co. (stationery).....	\$ 0 90
Chicago Daily Law Bulletin, (advertising).....	26 75
M. E. Weasmer & Co., (stenographer).....	2 80
Wm. Friedman (stenographer).....	26 00
O. N. Carter (postage).....	10 00
Warner's Towel Supply (toweling).....	1 50
Waukesha Hygeia Min-	

eral Springs Co. (water).....	\$3 75	
		\$ 71 70

## GENERAL ACCOUNT.

The Chicago Deposit Vault Co., (janitor service, April, 1894)	\$80 00	
Orrin N. Carter (Donald M. Ross settlement claim for personal injuries).....	75 00	
Thos. F. Judge (payroll and sundry expense).....	93 28	
		\$248 28
Grand total.....	\$205,508 37	

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 501, Engineering Department, (photographic outfit).....	\$196 00
No. 502, Engineering Department, (pigeon holeing).....	25 00
No. 503, Engineering Department, (flat-boat, etc.).....	31 84
No. 504, Engineering Department, (window shades, etc.).....	16 50
Total .....	\$26 34

Mr. Boldenweck, seconded by Mr. Cooley, moved that Requisitions Nos. 501 to 504 inclusive, for the Engineering Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Prendergast, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and Requisitions Nos. 501 to 504 inclusive, for the Engineering Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the

number of persons in the employ of the District for the week ending May 5, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, May 9, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending May 5, 1894, as the same have been reported to me:

Engineering Department.....	115
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	48
Total employes.....	176

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
*Clerk.*”

## MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of April, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, May 9, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to herewith report that the total amount expended on account of and charged to the Clerical Department during the month of April, 1894, was \$902.25, divided as follows:

Salaries.....	\$891 66
Stationery.....	2 34
General expenses.....	8 25
Total.....	\$902 25

There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$975.

The total amount expended and charged to the General Account, during

May 9,]

—1935—

[1894.

the month of April, 1894, was \$6,101.65, divided as follows:

Salaries.....	\$2,533 34
Printing and Stationery.....	106 78
Rent and Janitor Service.....	2 190 00
Advertising.....	749 38
General expenses.....	522 15

Total.....\$6,101 65

There are no outstanding liabilities against the General Account, and the expenses for the present month will be about \$4,000.

During the month of April, 1894, there were warrants authorized and drawn against the various accounts as follows:

Engineering Department.....	\$ 13 654 29
Clerical Department.....	902 25
Law Department.....	4 365 09
Treasury Department.....	166 67
General Account.....	6,101 65
Engineering Department (Construction Account).....	288,060 42
Bond Interest and Premium Account.....	47 500 00
Police Department.....	4 782 63

Total.....\$365,533 00

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

# MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of April, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT.

"CHICAGO, May 9, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I submit herewith the monthly report for April, 1894. The total amount paid out by this Department during said month is as follows:

## Salaries.

Attorneys.....	\$1,550 00
Office force.....	320 00
	\$1,870 00

## General Expenses.

Court costs.....	\$ 77 80
Right of way.....	387 75
General expense account.....	50 39

Legal services..... 1,979 15  
\$2,495 09

## Land Account.

Right of way (for which deeds were delivered).....	\$131,553 00
Total.....	\$135,918 09

Much time has been given during the month to matters connected with the assignment of the contracts for Section six (6) and seven (7), respectively, and to the preparation of the papers connected therewith, and of the additional specifications deemed desirable to be made.

The retrial of the suit of the District vs. Cook et al. has been prosecuted with some interruptions owing to other engagements of the trial judge, but a decision may now be looked for within a few days.

Attention has been given to the contracts for Sections N and O, let by your Honorable Body pursuant to bids received April 18, 1894, and also to the contract for Section one (1).

The injunction issued restraining the Board from reletting this section has taken up much time. The answer to the bill was prepared, as well as numerous affidavits setting up the facts, and same were used in support of the motion to dissolve the preliminary injunction. A decision is expected at an early day.

Some attention has also been given to land matters below Lockport. The list of all the lands owned by the District in Cook county has been checked over with the various assessors and the exemption of the same from taxes for the future secured. Where taxes for 1893 were a lien at the time of the purchase by the District and same had not been paid on May 1st, notices to that effect have been sent out, with a request that attention be given to the payment of same.

A plat of the lands thus far acquired throughout the entire right of way is being prepared under the direction of this department for the purpose of recording same.

During the coming month the department will be occupied with questions relating to the reletting of Section one (1), to further requirement of land and to routine work.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
Attorney."



## ADJOURNMENT TO SPECIAL TIME.

Mr. Boldenweck, seconded by Mr. Cooley, moved that when the Board adjourn it do adjourn to meet Saturday, May 12, 1894, at 1:30 o'clock P. M.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Prendergast, Russell and Wenter—six (6). Nays—Mr. Eckhart—one (1).

Upon which result the President declared the motion carried, and that

when the Board adjourn, it do adjourn to meet Saturday, May 12, 1894, at 1:30 o'clock P. M.

## ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned, to meet Saturday, May 12, 1894, at 1:30 o'clock P. M., pursuant to motion.

THOS. F. JUDGE,

*Clerk.*

## ADJOURNED MEETING.

The adjourned session of the two hundred and twenty-first regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Saturday, May 12, 1894, at 1:30 o'clock P. M., pursuant to motion.

On roll-call there were no members of the Board present.

At 2 o'clock P. M., there being still no quorum, in pursuance of the rules, the Board stood adjourned.

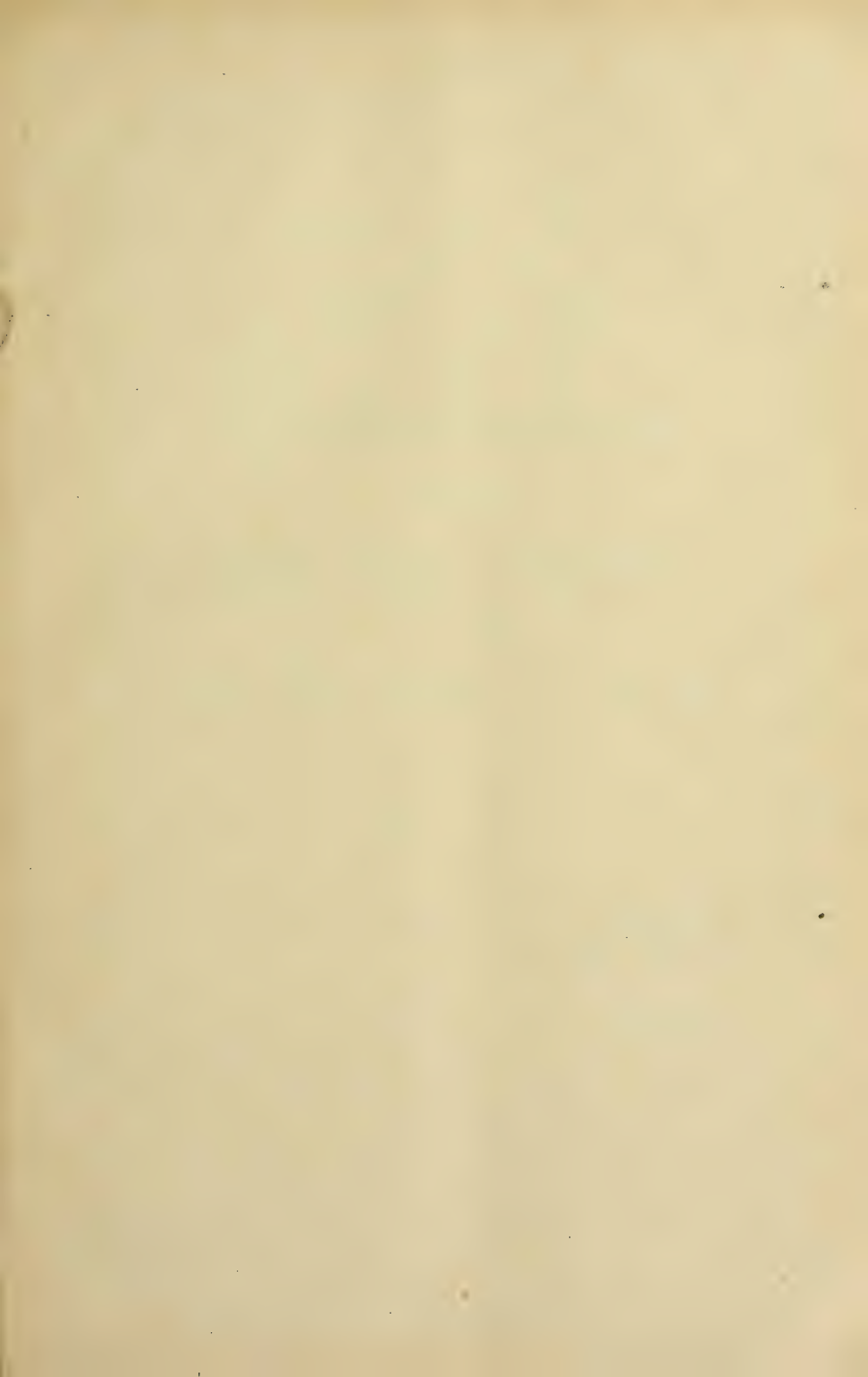
THOS. F. JUDGE,

*Clerk.*

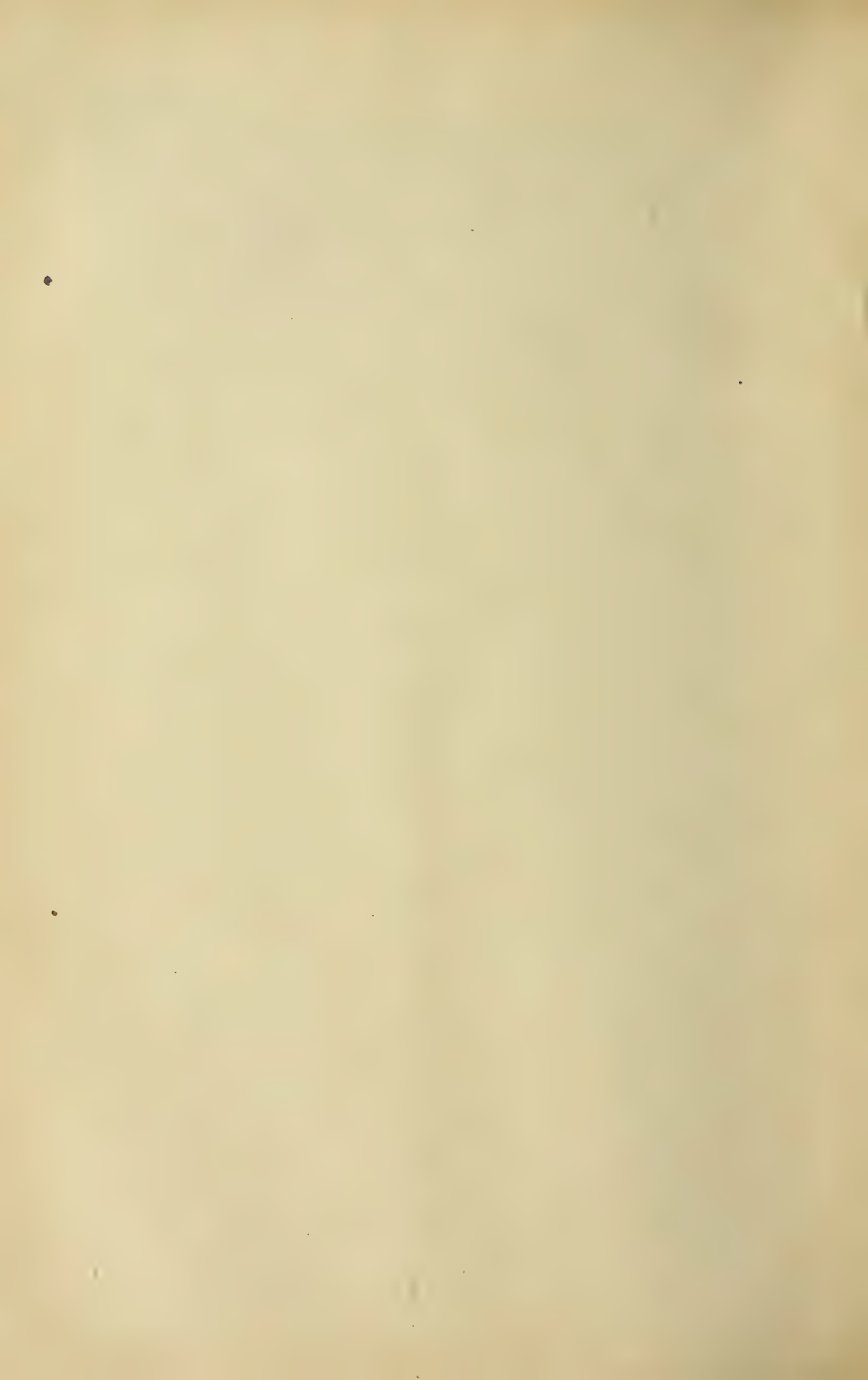
May 9,]

—1937—

[1894.







PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES,  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

MAY 16, 1894.

**OFFICIAL RECORD.**

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

**REGULAR MEETING.**

The two hundred and twenty-second regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, May 16, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7), and subsequently Messrs. Prendergast and Gilmore, making a total of nine (9) members, were present.

**MINUTES.**

The minutes of the regular meeting

held May 9, 1894, and of the adjourned session of the same regular meeting held May 12, 1894, were approved as printed, on motion of Mr. Eckhart, seconded by Mr. Boldenweck.

**VOUCHERS.**

The Clerk presented the following vouchers:

**ENGINEERING DEPARTMENT.**

*Construction Account—*

Heldmaier & Neu (Sec. 1, Willow Springs road levee, May 5, 1894).....	\$581 73
Heldmaier & Neu (Sec. B, making levee water-tight, May 5, 1894).....	697 07
	\$ 1,228 80

**ENGINEERING DEPARTMENT.**

Seelig & Kandler (repairing instruments)	\$26 30
J. M. Abbitt (sundries)	19 50

J. H. Spengler (sundries).....\$	18 25
J. H. Spengler (traveling).....	2 27
Thos. T. Johnston (traveling and sundries).....	80 28
	<hr/>
	\$ 146 60

## LAW DEPARTMENT.

E. S. Chesbrough (Supreme Court costs, Tedens et al. case)...	\$176 85
Orrin N. Carter (expense).....	24 33
Chas. H. Bryce (traveling).....	5 05
	<hr/>
	\$ 206 23

## POLICE DEPARTMENT.

Hibbard, Spencer, Bartlett & Co. (hardware)	\$45 35
F. P. Smith Wire and Iron Works (iron cage).....	120 00
Edward Williams (expense).....	37 57
	<hr/>
	\$ 202 91

Grand total..... \$ 1,784 54

Mr. Boldenweck, seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITION.

The Clerk presented the following requisition:

No. 924, Police Department, (printing).....\$21 00

Mr. Boldenweck, seconded by Mr. Kelly, moved that Requisition No. 924, for the Police Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 924, for the Police Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the

number of persons in the employ of the District for the week ending May 12, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, May 16, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending May 12, 1894, as the same have been reported to me:

Engineering Department.....	114
Clerical Department.....	4
Treasury Department.....	1
Law Department....	8
Police Department.....	48

Total employes..... 175

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

## MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of April, 1894.

The same was read, and, by unanimous consent, was ordered printed and, with accompanying classified statement, placed on file.

The following is

## THE REPORT:

“CHICAGO, May 5, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the reports of Divisions 1, 2 and 3, showing the detailed operations of the Engineering Department for the month of April, including table giving the rate of progress on the several contracts; also a classified statement of expense in the usual form.

Expenses for the month of April were as follows:

Pay rolls.....	\$ 12,482.84
Material, etc.....	941.30
Contractor's estimates.....	298,777.16

Total for April.....\$312,201.30



I estimate the expenses for May will be \$300,000.00, including contractors' estimates.

Yours truly,

(Signed)

ISHAM RANDOLPH,  
Chief Engineer."

(Accompanied by classified statement.)

—  
"CHICAGO, May 15, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR:—I beg to submit this report for the month of April, appending hereto the usual tabulated statements showing the condition of the work up to date, the progress made during the month, and the average monthly force account.

The weather during the month of April has been much more favorable than in any preceding month this year, though there was sufficient rainfall to greatly retard the work of opening the new sections, viz.: G, H, I, K, L and M. By the provisions of the contracts, the time of the commencement on these sections was January 1st of this year, the first four months to count as one month in rating the progress thereon. The first four months expired on the 1st inst., and are therefore reckoned as one month in the April statement, which shows the following percentage of work done, viz.: Section M, 22 per cent; Section L, 53 per cent; Section K, 8 per cent; Section I, 63 per cent; Section H, 00 per cent; Section G, 92 per cent. The reason for the variation in these percentages is that they are divided between three contractors—two to each, in the consecutive order named, and most of the contractors confined their opening operations principally to one section. It should also be observed that commencing at that unfavorable season (January 1st), it was practically impossible to do more than make preparations during the first three months at least.

The contractors have been engaged in leveeing and draining their work, and providing tools, machinery, etc., and now that settled weather may be expected, I see no reason why suitable progress should not be made and maintained in the near future.

Owing to conditions mentioned in my last month's report, Sections F and E are in practically the same situation as there-in stated.

On Section D there were excavated during the month, 124,660 cubic yards—being 209 per cent, or more than double the required rate.

Section C shows a commendable gain over any preceding month, the number of cubic yards being 59,311, which is 104 per cent of the requirement.

Sections B and A, under the same management, also show a decided improvement. On the former, there were excavated 37,920 cubic yards, equal to 76 per cent, and on the latter 164,414 cubic yards (the largest monthly out-put in quantity yet attained on the canal), equal to 208 per cent.

Section 1, I may state, for the purpose of preserving the record, is still in *status quo*, no award having yet been made upon the bids received recently upon the proposals for a re-letting of the section, owing to injunction proceedings.

Sections 2 and 4 are in the hands of the same contractors, and the former shows 55,700 cubic yards excavated (150 per cent), and the latter 42,797 cubic yards (107 per cent).

Section 3 does not make a satisfactory return for the month, the out-put being but 19,400 cubic yards, or 39 per cent of the amount required. This is largely accounted for by reason of there being less earth overlying the rock than was indicated and prepared for. This necessitates the earlier use of rock appliances than was anticipated, and for this purpose they are now putting up an air compressor plant, have two cable ways under construction and two more contracted for. They also have two channellers on the work, and more favorable results may reasonably be expected.

Section 5 made but little headway during the month further than getting reorganized after the suspension of the preceding month, caused by change of plans, etc., as stated in my preceding report. The indications are, however, that the current month will show a decided gain on this section, under the new conditions.

Section 6 has shown considerable gain over any preceding month, but as it has just passed into the hands of another contractor, some time will be required to properly organize and install the necessary plant for bringing the work up to its full rating.

Sections 7, 8, 11, 12 and 13 are under one general management, the average progress on which is far in excess of that called for by the contracts. The respective monthly percentages of these sections are 89, 146, 129, 92 and 197.

Section 9, recently transferred to an-

other contractor, continues to show a steady gain, the rate for April being 132 per cent. The contractors are further enlarging their plant, and greater increase of progress may be expected.

Section 10 returns the largest monthly yardage yet excavated in the rock sections. The estimate for April is 50,400 cubic yards, or 179 per cent.

Section 14 shows a considerable increase, the amount returned being 82 per cent of the requirement. They have an air compressor nearly completed, and several derricks in course of construction. They promise full progress in the near future, and indications justify it.

It will be observed, from the statement of the April work hereto appended, that while nothing at all was done on Sections H, E and I, and but little on Sec-

tions M, K, F, 3 and 5, yet on ten sections there was sufficient excess to bring the average percentage on the whole, including the new sections not yet fully organized, up to 96 15-100 per cent of the requirement for the entire work. The large excess made on the ten sections above referred to, demonstrates that with the proper amount of plant and push, the rates now required by the contracts can easily be doubled, and that there is no reason whatever for any extended delinquency on any section on the line. This is by far the best month's work yet done, and the indications are that even better results may be expected hereafter.

Respectfully submitted,

(Signed)

U. W. WESTON,

*Supt. of Construction."*

STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE  
MONTH OF APRIL, 1894 (MAIN CHANNEL).

SECTIONS.	Amount Done During April.	Average Monthly Requirement.	Deficiency for April.	Excess Over Monthly Requirement.	Per Cent. of Monthly Requirement.
M.....	\$ 1,367 10	\$ 6,255 02	\$ 4,887 92	.....	0.22
L.....	4,570 40	8,648 36	4,077 96	.....	0.53
K.....	925 00	11,490 55	10,565 55	.....	0.08
I.....	7,150 00	11,361 94	4,211 94	.....	0.63
H.....	.....	11,966 83	11,966 83	.....	0.00
G.....	14,557 20	15,791 38	1,234 18	.....	0.92
F.....	4,055 31	10,234 52	6,179 21	.....	0.40
E.....	.....	15,543 96	15,543 96	.....	0.00
D.....	32,956 99	15,788 43	.....	\$ 17,168 56	2.09
C.....	13,988 09	13,352 40	.....	585 69	1.04
B.....	10,238 40	13,443 95	3,205 55	.....	0.76
A.....	50,351 79	24,224 63	.....	26,127 16	2.08
1.....	.....	23,902 47	23,902 47	.....	0.00
2.....	27,850 00	18,552 56	.....	9,297 44	1.50
3.....	10,864 00	28,188 65	17,324 65	.....	0.39
4.....	20,970 53	19,647 28	.....	1,323 25	1.07
5.....	1,457 00	14,304 28	12,847 28	.....	0.10
6.....	8,974 00	14,743 47	5,769 47	.....	0.61
7.....	15,423 50	17,405 63	1,982 13	.....	0.89
8.....	31,076 50	21,295 08	.....	9,781 42	1.46
9.....	25,404 50	19,232 36	.....	6,172 14	1.32
10.....	40,320 00	22,472 29	.....	17,847 71	1.79
11.....	25,122 25	19,493 74	.....	5,628 51	1.29
12.....	17,672 75	19,172 88	1,500 13	.....	0.92
13.....	36,627 50	18,588 65	.....	18,038 85	1.97
14.....	16,372 80	19,891 82	3,519 02	.....	0.82
Totals.....	\$418,245 61	\$434,993 13	\$128,718 25	\$111,970 73	.96 15-100

NOTE.—The work done on Sections "G" to "M" January 1st to May 1st is given as April work, these being the first four months which are considered as one.

May 16,]

—1942—

[1894.]

## FORCE REPORT—DAILY AVERAGE, APRIL, 1894.

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Chan- nelers.	Air Com- pressors.	Conveyors.	Locomo- tives.	Cars.	Dredges.	Cable ways.	Graders.
M.....	39	3	.1	...	...	...	...	...	.1	...	...	...	...	...
L.....	44	9	1	1	...	...	...	...	1.0	...	...	...	...	...
K.....	13	9	...	...	...	...	...	...	...	...	...	...	...	...
I.....	73	15	1.5	1.7	...	...	...	...	1.5	...	...	...	...	...
H.....	2	...	...	...	...	...	...	...	...	...	...	...	...	...
G.....	52	27	.5	3.1	...	...	...	...	...	...	25	...	...	...
F.....	106	2	2	3.1	...	...	...	...	...	4	23	...	...	...
E.....	15	3	...	...	...	...	...	...	...	...	...	...	...	...
D.....	132	109	2	3	...	...	...	...	...	4	36	...	...	2.4
C.....	105	21	2.5	2	...	...	...	...	...	5	33	...	...	...
B.....	75	...	...	...	...	...	...	...	...	...	...	.6	...	...
A.....	97	1.6	...	...	...	...	...	...	...	...	...	3.4	...	...
2.....	351	19	...	4.3	...	2	...	...	...	...	...	...	...	...
3.....	213	11	...	5.2	...	2	...	...	...	...	...	...	...	...
4.....	310	30	1.6	3.0	...	1	...	...	...	...	...	...	...	...
5.....	86	1	.8	3.9	...	...	...	...	...	2	...	...	...	...
6.....	30	...	...	...	...	...	...	...	...	...	...	1.9	...	...
7.....	221	4	...	3.9	5	3.9	1.3	...	.6	...	...	...	...	...
8.....	368	35	4.9	14.1	2.5	5.1	...	...	...	...	...	...	.8	...
9.....	311	6.3	...	6.4	9.7	2.1	5.1	...	1.8	...	...	...	...	...
10.....	407	5.0	...	5.1	17.7	3.2	7.4	1.1	2.7	...	...	...	...	...
11.....	165	4	...	5.6	11.1	...	6.3	1	1.6	...	...	...	.9	...
12.....	122	2	...	4.4	7.3	...	2.7	1	2.6	...	1	...	...	...
13.....	251	4	...	6	14.6	...	7.3	1	3.6	...	...	...	...	...
14.....	190	8	1.5	3	4.9	1.0	3.5	...	...	2	53	...	...	...
Totals.....	3,778	328.9	13.5	69.6	84.4	14.1	33.7	4.1	15.5	17	171	5.9	1.7	2.4



TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVER

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION.	
		Glacial Drift	Solid Rock.	Glacial Drift	Solid Rock.
		Cubic Yards.	Cubic Yards.	Cubic Yards.	Cubic Yards.
M	The Heidenreich Co.....	6,300			
L	The Heidenreich Co.....	23,200			
K	Christie & Lowe.....	3,700			
I	Christie & Lowe.....	28,600			
H	Gahan & Byrne.....				
G	Gahan & Byrne.....	51,990			
F	Ricker, Lee & Co.....	316,659		158,234	
E	Streeter & Kenefick.....	469,163		95,718	
D	E. D. Smith & Co.....	494,606			
C	Western Dredging & Imp. Co.....	254,433		162,537	
B	Heldmaier & Neu.....	54,120		204,626	
A	Heldmaier & Neu.....	343,749		117,786	
1		107,600		5,876	
2	McArthur Bros.....	256,900		29,500	
3	Gilman & Co.....	202,810			
4	McArthur Bros.....	259,240			
5	The Qualey Construction Company	253,600			
6	Mason, Hoge & Co.....	215,000		112,700	
7	Mason, Hoge & Co.....	90,600	119,900	96,700	41,000
8	Mason, Hoge, King & Co.....	27,600	151,200	52,900	96,200
9	Halvorson, Richards & Co.....	58,200	160,700	37,700	16,000
10	E. D. Smith & Co.....	26,400	399,700	27,400	56,500
11	Mason, Hoge & Co.....	43,492	374,300	5,756	11,483
12	Mason, Hoge & Co.....	27,400	377,300		
13	Mason, Hoge & Co.....	32,822	526,800		
14	Smith & Eastman.....	65,500	148,700		
Totals.....		3,713,684	2,258,600	1,107,433	221,183

Main Channel, glacial drift.....

Main Channel, solid rock.....

River Diversion, glacial drift.....

River Diversion, solid rock.....

Total amount required to be done May 1st, 1894.....

Total amount done May 1st, 1894.....

Total amount short as per contracts.....

Total value of work done May 1st, 1894.....

Reserved.....

{ 12½ per cent.....

{ 10 per cent.....

Total value of vouchers paid including those of May 1st, 1894.....

## SION) AND CONDITION OF WORK ON CONTRACTS MAY 1st, 1894.

Total value of work done to May 1st, 1894, on each section.	Total value of work required to be done to May 1st, 1894.	Amounts behind as per contracts.	Amounts ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary January 1, 1894, to time of completion.	Progress made during month of April, 1894.
\$ 1,367 10	\$ 6 255 02	\$ 4 887 92	.....	\$ 6,255 02	\$ 6,255 02	\$ 1,150 10
4,570 40	8,648 36	4,077 96	.....	8,648 36	8,648 36	4,215 80
925 00	11,490 55	10,565 55	.....	11,490 55	11,490 55	925 00
7,150 00	11,361 94	4,211 94	.....	11,361 94	11,361 94	6,181 50
.....	11,966 83	11,966 83	.....	11,966 83	11,966 83	.....
14,557 20	15,791 38	1,234 18	.....	15,791 38	15,791 38	4,991 28
112,787 09	113,456 64	669 55	.....	11,077 29	10,304 08	4,055 31
155,342 28	157,836 76	2,494 48	.....	16,152 61	14,049 40	.....
130,761 46	154,872 78	24,111 32	.....	15,788 43	16,959 62	32,956 99
97,987 95	145,456 50	47,468 55	.....	14,545 65	15,181 13	13,938 09
69,861 42	150,817 60	80 956 18	.....	15,081 76	16,016 16	10,238 40
141,345 09	254,063 80	112,718 71	.....	25,406 38	28,852 64	50,351 79
30,638 52	311,235 21	280,596 69	.....	23,941 17	29 786 94	.....
130,638 00	281,310 45	150,672 45	.....	18,754 03	24,040 90	27,850 00
92,313 70	160,736 95	68,423 25	.....	28,188 65	27,764 65	10,864 00
116,337 14	314,356 48	198,019 34	.....	19,647 28	25,892 29	20,970 53
68,560 00	205,737 05	137,177 05	.....	14,304 28	17,337 19	1,457 00
87,274 00	83,602 00	.....	\$ 3,672 00	15,599 38	19,410 66	8,974 00
166,959 50	166,959 50	.....	.....	18,777 24	21,951 52	15,423 50
205,861 50	398,504 14	192,642 64	.....	23,441 42	29,169 63	31,599 75
160,816 30	337,174 43	176,358 13	.....	19,833 79	25,568 28	25,404 50
378,410 00	402,567 31	24,157 31	.....	23,680 43	26,373 31	40,320 00
320,630 55	336,728 18	16,097 63	.....	19,807 54	20,621 43	25,122 25
307,298 75	325,938 96	18,640 21	.....	19,172 88	19,406 36	17,672 75
402,316 72	316,007 05	.....	86,309 67	18,588 65	16,855 10	36,627 50
125,171 00	338,160 94	212,989 94	.....	19,891 82	25,709 24	16 372 80
\$3,329,880 67	\$5,021,036 81	\$1,781,137 81	\$89,981 67	\$447,194 76	\$496,764 61	\$407,662 84

## Cubic Yards.

.....	3,713,684
.....	2,258,600
.....	1,107,433
.....	221,183
.....	\$5,021,036 81
.....	3,329,880 67
.....	\$1,691,156 14
.....	\$3 329,880 67
.....	\$402 488 81
.....	84,974 28
.....	487 463 09
.....	\$2,842,417 58

"CHICAGO, May 3, 1894.

*Mr. Isham Randolph, Chief Engineer:*

DEAR SIR:—The work of Division 2 for the month of April was as follows:

Continued the cross sectioning of the territory along the line of the river diversion channel. The work is now completed from the head of Goose Lake to a point just east of the Summit road.

Completed the reduction of the discharge measurement notes taken at Willow Springs. The measurements taken near the spillway are being reduced.

The borings being made along the line of the Pan Handle tracks are nearly completed.

Some further time was given to the plans for the extension of the Main Channel below the end of Section 14.

The relief map of the Desplaines Valley, between the end of Section 14 and Joliet, is nearly complete.

Considerable work was done in connection with the contracts for Sections I, N and O. The maintenance and records of water gauges was continued.

The expenses for May will be about the same as for the past month.

Respectfully,

(Signed) THOS. T. JOHNSTON,

*First Assistant Chief Engineer."*

"CHICAGO, May 14, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of April, 1894:

Finished one map showing the contours of the bottom of the soft material on the line of the Main Channel through Sections A and B; one map of property owners between the Elgin, Joliet and Eastern Railroad and Joliet; two disease charts of 1890 with contours and lines of sewers; a tracing of the right of way plats between Summit and Bridgeport, and a tracing showing the contours on the bank of the Illinois and Michigan Canal near Joliet.

Continued work on the progress charts and profiles, and on the right of way maps for the plat books. The platting of one set of maps for the plat books of the tracts between Lockport and Western avenue has been finished.

Made two estimates of levee embankments on Section 3, a tracing of the

work at Station 986 of the Main Channel, and a map from Summit to Bridgeport showing tracts between the Illinois and Michigan Canal and the Chicago, Burlington and Quincy Railroad.

Commenced work on a map for the County Clerk's office the right of way in Cook County.

Copies were made during the month, of plats in the County Recorder's office for use in compiling District maps.

Platting was done on three maps for the Board Room. A colored map of topography between Chicago and Joliet was finished.

Work was continued on the platting of the Sanitary District map.

The expense for May will be the same as for the past month.

Yours respectfully,

(Signed) EDGAR WILLIAMS,

*Second Assistant Chief Engineer."*

#### CONSTRUCTION OF SURFACE DITCHES ALONG MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer, with reference to the construction of surface ditches along the Main Channel, stating that he had ordered the same to be made on many portions thereof; and the report was read

Mr. Kelly, seconded by Mr. Boldenweck, moved that the report be ordered printed and placed on file, and the action of the Chief Engineer, as set forth in the report, be approved.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, and the action of the Chief Engineer, as set forth in the report, approved.

The following is

#### THE REPORT:

"CHICAGO, May 10th, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—It is very apparent that as a necessary protection on many portions of the Main Channel, surface ditches should be made parallel with the channel, to collect and carry off the surface waters due to rainfall.



The sides of the channel are being gul-  
lied, and a considerable amount of ma-  
terial washed into the cuts by the flow of  
this unrestrained surface water. I shall  
order the necessary ditches to be made;  
and I make this communication to you  
that the reasons therefor may go into the  
record.

Very respectfully,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

ADDITIONAL WORK ON CANAL BANKS  
ON SECTIONS "A" AND "B."

The Clerk presented a report from the  
Chief Engineer, stating that he had been  
previously directed to raise the I. & M.  
canal bank on Sections A and B, and  
that additional work not originally con-  
sidered necessary had been required,  
and requesting that payment of  
the bills for completing the raised em-  
bankments, be authorized; and the re-  
port was read.

Mr. Boldenweck, seconded by Mr.  
Kelly, moved that the report be ordered  
printed and placed on file, and the pay-  
ment of the bills for completing the  
raised embankments, be authorized, as  
requested in the report.

On roll-call the vote stood: Yeas—  
Messrs. Altpeter, Boldenweck, Cooley,  
Eckhart, Kelly, Russell and Wenter—  
seven (7). Nays—None.

Upon which result the President de-  
clared the motion carried, the report  
ordered printed and placed on file, and  
the payment of the bills for completing  
the raised embankments, authorized, as  
requested in the report.

The following is

THE REPORT:

"CHICAGO, May 14, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—On November 15th, 1893,  
you passed an order requiring that the  
low places on the Illinois and Michigan  
Canal Bank on Sections A and B should  
be raised to the "probable height of next  
season's floods." Under that order the  
said banks were raised to a height of 18  
feet above datum, and vouchers returned  
for the amount of the work. The last  
one of these vouchers was marked *final*.  
The freshet of March 6th showed that  
we had not reached a height with our  
levees which would be safe should a  
maximum flood occur, and therefore, the  
terms of the order of November 15th

had not been complied with, I proceeded  
under that order to raise the levees two  
feet, and I now ask you to authorize pay-  
ment of the bills incurred for labor, etc.,  
in completing this improvement. The  
doing of the work under the order of  
November 15th, seems perfectly legiti-  
mate, but inasmuch as an estimate  
marked "final" has been paid, the order  
asked for seems necessary to keep the  
record clear.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

SUSPENSION OF CLAUSE "J" OF CON-  
TRACTS ON SECTIONS 8 AND 9.

The Clerk presented a report from the  
Chief Engineer, recommending the sus-  
pension of the operation of Clause "J" of  
the contracts on Sections 8 and 9, for  
which Mason, Hoge, King & Company,  
and Halverson, Richards & Company  
are contractors; and the report was read.

Mr. Boldenweck, seconded by Mr.  
Cooley, moved that the report be adopted,  
ordered printed and placed on file, and  
the recommendations made therein for  
the suspension of Clause "J" on the con-  
tracts for Sections 8 and 9, be concurred  
in.

On roll-call the vote stood: Yeas—  
Messrs. Boldenweck, Cooley, Eckhart,  
Kelly, Russell and Wenter—six (6). Nays  
—Messrs. Altpeter and Prendergast—two  
(2).

Upon which result the President de-  
clared the motion carried, the report  
adopted, ordered printed and placed on  
file, the recommendations made therein  
for the suspension of Clause "J" on the  
contracts for Sections 8 and 9, con-  
curred in.

The following is

THE REPORT:

"CHICAGO, May 15, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The contractors for Sec-  
tions Nos. 8 and 9 have asked for a suspen-  
sion of the operations of Clause J on their  
respective sections. Mason, Hoge, King  
& Co. show an investment in the plant  
upon Section 8 of about \$115,000, in ad-  
dition to the Agnew plant, which they  
purchased at the time that Section was  
assigned to them; and their progress is  
such as to justify you in granting their  
request.

Halverson, Richards and Co., on Sec-

tion 9, show an investment in plant of over \$100,000, and their progress exceeds the monthly requirements quite largely.

In view of these facts, I recommend that the operations of Clause J be suspended upon Sections 8 and 9.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

#### ADDITIONAL MEANS OF TRANSPORTATION FOR ENGINEERING DEPARTMENT.

The Clerk presented a report from the Chief Engineer, asking the establishment of additional means of transportation along the Main Channel, for the Engineering Department; and the report was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report be ordered printed and referred to the Joint Committee on Finance and Engineering.

Mr. Cooley, seconded by Mr. Altpeter, moved as an amendment that the report be ordered printed and referred to the Committee on Health and Public Order.

On roll-call on the amendment, the vote stood: Yeas—Messrs. Altpeter, Cooley and Wenter—three (3). Nays—Messrs. Boldenweck, Eckhart, Gilmore, Kelly, Prendergast and Russell—six (6).

Upon which result the President declared the amendment lost.

On roll-call on the original motion of Mr. Kelly, the vote stood: Yeas—Messrs. Boldenweck, Eckhart, Gilmore, Kelly, Prendergast and Russell—six (6). Nays—Messrs. Altpeter, Cooley and Wenter—three (3).

Upon which result the President declared the original motion carried, and the report ordered printed and referred to the Joint Committee on Finance and Engineering.

The following is

#### THE REPORT:

"CHICAGO, May 16, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Under existing arrangements governing transportation over the line, my own movements and those of my associates, whose duties require them to pass back and forth over the work we have in progress, are very much hampered and restricted. Unless our plans can always be made a day in advance,

we cannot avail ourselves of the horses and vehicles stationed at Sag, except when our work calls us to the near vicinity of that station. With the variety of conditions to be met here, the "prophetic exactness of Baalam or a mad Casandra" would be required to lay all of our plans 24 hours in advance. Besides which, with the stretch of territory to be gone over, the tax upon a very limited equipment of horse flesh, stationed near the middle of the line, is greater than the merciful man should put upon his beast. I therefore ask that more latitude be allowed in the matter of livery hire, or else that another stable be established by the District at a convenient point to meet our needs.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

#### SAVING OF BRIDGE MASONRY STONE ON SECTION 7.

The Clerk presented a report from the Chief Engineer, asking instructions with reference to the saving of stone for bridge masonry under the contract on Section 7, for which, Mason, Hoge & Company are contractors; and the report was read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

"CHICAGO, May 16, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—We have an option embodied in the revised contract under which Section No. 7 was transferred by assignment from Agnew & Co. to Mason, Hoge & Co. which permits us to require the said Mason, Hoge & Co. to save certain stone suitable for bridge masonry subject to conditions and specifications named in the contract. The time has come for this option to be acted upon, inasmuch as the contractors have now uncovered and are preparing to excavate the best ledges of rock on that Section. I therefore ask for instructions from you enabling me to have this stone saved.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*



DISSOLUTION OF HARLEV INJUNCTION ON  
SECTION 1.

The Clerk presented a report from the Attorney, transmitting copy of the opinion of Judge Abner Smith, dissolving the injunction secured by Alfred Harlev, restraining the District from re-letting or re-contracting all or any part of Section 1; and the report and accompanying opinion were read.

Mr. Boldenweck, seconded by Mr. Alt-peter, moved that the report and accompanying opinion be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

## THE REPORT, WITH ACCOMPANYING OPINION:

“CHICAGO, May 16th, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The motion to dissolve the preliminary injunction issued in the case of Alfred Harlev vs. Sanitary District of Chicago, was argued before his Honor, Judge Smith, on the third and fourth days of May. The matter was taken under advisement, and on the 11th of May, the Judge announced his decision, dissolving the injunction. His opinion fully sustains the position taken by the Attorneys of the Board—a copy of the opinion is transmitted herewith.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
Attorney.”  
(Accompanied by opinion.)

The following is

## THE OPINION:

“This is a motion to dissolve an injunction granted upon a bill filed on April 24, 1894, by Alfred Harlev against the Drainage District of Chicago, wherein is set forth the contract between the complainant and defendant, under which the complainant agreed to construct a portion of the Canal. Pursuant to the prayer of said bill, the defendant was temporarily enjoined from interfering with complainant's possession and contract of said work, or his prosecuting the same, and from re-letting said work or any part thereof to any bidders and all persons, and from confiscating or

appropriating any part of the plant or property of complainants.

In addition to the prayer for injunction, the bill as amended contained a prayer for an accounting and for a specific performance of the contract, alleging in substance that the defendant has attempted to interfere with his performance of the contract and that the defendant has pretended to declare the contract null and void because of a failure on the part of the complaint to comply with the terms thereof.

The disposition of this motion to dissolve the injunction does not necessarily involve the decision of all the questions involved in the bill. The complainant may have many rights in this matter which can be fully protected without relying upon the aid of an injunction. It was provided in the contract that the work should be executed under the direction and supervision of the Chief Engineer of the defendant and such assistants, superintendents and inspectors as he might appoint, that by their measurements and calculations the quantities and amounts of the several kinds of work performed should be determined and on whose inspection all work should be accepted or condemned, and that said Engineer should have full power to reject or condemn all materials furnished or work performed, and that said Engineer should decide every question which might arise between the parties to the contract relative to the execution thereof, and that his decision should be final and binding upon both parties.

The contract provides that work should be commenced within 30 days after the execution of the contract, or as soon after the expiration of the said 30 days as the Sanitary District should have acquired title to the necessary right of way and shall have notified the contractor to begin. That all of the work to be done under the contract should be completed and ready for inspection on or before April 30, 1896, provided that if for any reason the contractor is not permitted by the Sanitary District to begin the main excavation of the said channel on or before August 1, 1892, then the Sanitary District should extend the time for the completion of the contract as much beyond the time specified for its completion as the time of beginning the main work should be subsequent to August 1, 1892.

It was required by the contract that the



work done each month should not be less than such proportion of the whole work as one month bears to the total number of months fixed for the completion of the whole work, provided that the first four months after notice to begin should be considered as one month, and the last two months before date of completion as one month.

And it was also provided in said contract that in case the contractor should fail to comply with the provisions of this contract as to progress and character of work, he should be duly notified in writing, and 30 days after the giving of said notice, the Drainage District may declare the contract forfeited if there is substantial failure to comply with its provisions. It is the necessary conclusion reached by reading the bill as amended, the answer thereto together with the affidavits on file, that the complainant actually went into possession of the premises and commenced operations under the contract in January, 1893. It is not contended by the complainant that any excavating or work was done for which he was entitled to any estimate at the end of the first four months following January 1st, 1893, but as an excuse for not having done any excavating within said four months, it is claimed that his operations were interfered with by a flood which overflowed the premises or some portion thereof where the work was to be done. It is also claimed by the complainant that the work of grubbing and preparing the ground for excavating and making the necessary preparations for the commencement of the substantial work of excavating and walling, which was the only work calling for measurement, and upon which all compensation was based, should have been taken into account in calculating the proportion of work done in the first four months. That by calculating what proportion had been done in the first four months (to be counted as one month) the Engineer made a mistake in his calculations upon the proportionate amount of work done each month because he did not include the work of clearing, grubbing, etc. It seems to me, however, to be more reasonable to conclude that there was a reason for providing in the contract that the contractor should have four months time in which to do the first month's work, which was to be counted in estimating the proportionate progress of the work,

and that at least one reason for allowing to him four months time in which to do one month's work was because much preliminary work must necessarily be done before the actual work for which the contractor could draw pay could be commenced, as his pay was calculated upon the cubic yard. I believe it was the intent and spirit of the contract that the contractor should have three extra months after commencing the work of preliminary preparations before he was expected to commence the real work upon which his compensation was based, and that it can be fairly claimed as against him that he should have done within said four months one month's proportionate work in amount exclusive of the preliminary work. Nor does it seem that he should be excused from the performance on account of the flood, as that was not so specified in the contract. It is argued also, relative to the work done upon River Diversion, under the contract dated August 30, 1893, by the complainant, acting as defendant's agent (it being a portion of the same work embraced in the original contract), that the time consumed in doing this work should not be counted against the complainant, and a part of the time allowed in which to perform the original contract. In other words, it was contended that while he was doing this work as the agent of the defendant, nothing should have been required of him under the main contract, as he could not fairly be expected to be carrying on work under both contracts at the same time. If it had been intended that the contract for the River Diversion should effect the first in any manner beyond that of eliminating from it the amount of work on the River Diversion, it should have been so stated in the contract. It is a significant fact that there was no clause in either contract by which the defendant could insist that the complainant must devote his entire time and attention to the performance of that particular contract, and my conclusion is that the terms of the new contract did not relieve the contractor from the performance of any part of his duties under the first contract, excepting so far as it was specifically stated in the provisions of the new contract.

But as I construe the contract involved in this suit, the engineer, under its provisions, was the one whose construction should be

taken by both parties to it, so far as determining whether the contractor had complied with its provisions or not, and the only relief that either party could claim as against his decision would be because of fraud or mistake on his part, and no fraud is alleged or shown, nor does there appear to be any mistake in his work so far as shown by the affidavits. He was to decide all questions of measurements, calculations including progress and character of the work done, and his decision in these matters was binding upon all parties and was the basis of action by the Drainage District as to forfeiting the contract. And after reading carefully all the numerous affidavits on file in this case (disregarding so much of defendant's affidavits as was not responsive to the affidavits filed by the complainant because said complainant had no opportunity to file affidavits in response to those last filed by the defendant) the conclusion necessarily reached is that the complainant did not comply with the provisions of his contract, and that the defendant had the right to forfeit, as it did forfeit, the contract with the complainant. The complainant having failed to perform his contract, and the same having been declared null and void because of such failure, I see no ground upon which an injunction can be permitted, forbidding the re-letting of the work, nor do I perceive upon what ground an injunction can be sustained preventing the defendant from doing whatever it might do in the matter if no contract had ever been made with the complainant. No ground appears upon which the complainant can be entitled to an injunction to enable him to collect whatever may be due him, as so far as appears, there is ample ability on the part of the defendant to pay, when ascertained, whatever amount may be found due to the complainant upon the matter arising out of this contract. Nor does it seem necessary in deciding this motion to determine whether the right of action on the part of the complainant be one at law or in equity.

The injunction is therefore dissolved."

#### COMPLETED CONTRACTS AND BONDS ON SECTIONS N AND O.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, transmitting completed contracts and bonds with Hayes Brothers and McMahon

& Montgomery Company for Sections N and O of the Main Channel, recommending that the bonds transmitted be approved, and the President and Clerk be authorized and directed to execute the accompanying contracts on behalf of the District, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and, with accompanying completed contracts and bonds, placed on file, the recommendations made in the report concurred in, the bonds approved, and the President and Clerk authorized and directed to execute the accompanying contracts on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and with accompanying completed contracts and bonds, placed on file, the recommendations made in the report concurred in, the bonds approved, and the President and Clerk authorized and directed to execute the accompanying contracts on behalf of the District, as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, May 16, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance presents herewith the contracts of Hayes Brothers and McMahon and Montgomery Company, for Sections N and O, respectively, of the work this side of Summit, Illinois, accompanied by approved bonds.

The Fitz-Simons & Connell Company, Green's Dredging Company and Chicago Dredging and Dock Company, have joined in the execution of each of said contracts, as per report of the Joint Committee on Engineering and Finance, adopted by your Honorable Body May 2, 1894.

Your Committee recommends that the bonds be approved and that the President and Clerk be authorized and di-



rected to execute said contracts on the part of the District.

Respectfully submitted,

(Signed)

B. A. ECKHART,

*Chairman.*

W. H. RUSSELL,

THOMAS KELLY,

*Committee on Finance."*

(Accompanied by two (2) completed contracts and bonds in duplicate.)

#### PURCHASE OF "DAGGETT" LANDS.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase, from Belle F. Boehme and Clara P. Mayo, of certain right-of-way lands in Will County (known as the "Daggett lands") and authorizing and directing the Clerk to pay for said right of way lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay the said Belle F. Boehme and Clara P. Mayo, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay the said Belle F. Boehme and Clara P. Mayo, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, May 16th, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with Belle F. Boehme and Clara P. Mayo for the purchase from them for the corporate purposes of this District of the land hereinafter described

for the sum of twenty-nine thousand one hundred and twenty-five (\$29,125.00) dollars.

Your Committee recommends that the Clerk of this District be directed to pay, on the voucher of the Attorney, to said Belle F. Boehme and Clara P. Mayo, represented by Garsey & Knox, attorneys, the sum of twenty-nine thousand one hundred and twenty-five (\$29,125.00) dollars, in full payment for the following described land, to-wit:

That part of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section twenty-seven (27), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, lying west (W.) of the right of way now occupied by the Chicago, Santa Fe and California Railway Company, with the riparian rights thereof.

Also, that part of the west half (W.  $\frac{1}{2}$ ) of said Section twenty-seven (27) lying between the right of way now occupied by said railway company and the center thread of the current of the Desplaines River, with the riparian rights thereof.

Also, land bounded and described as follows: Beginning at a point on the east and west center line of Section twenty-two (22), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, twenty-seven (27) chains east (E.) of the center of said section and running thence south (S.) twenty and twenty-five one-thousandths (20.025) chains; thence west (W.) nineteen and thirty-one one-hundredths (19.31) chains; thence north (N.) parallel with the east (E.) line of said section, thirty-two and five hundred and forty-five one-thousandths (32.545) chains; thence east (E) parallel with the north (N.) line of said section, twelve and thirty-one one-hundredths (12.31) chains; thence north (N.) parallel with the east (E.) line of said section, twelve and fifty-two one-hundredths (12.52) chains; thence east (E.) in a straight line to the westerly margin of the Desplaines River; thence northeasterly, and at right angles to the general course of said river there, to the center thread of the current of said river; thence southeasterly along said center thread to its intersection with a line drawn easterly from the point of contact of the east and west center line of said Section twenty-two (22), or said east and west center line produced, with the westerly margin of said river, and at right angles to the general course of said river there; thence westerly along said line to said westerly margin; thence west along said east and west center line, or said east and west center line produced, to



the point of beginning. Subject, however, to a right of way over said last described premises granted to Jacob Vogt by deed dated August 21st, 1893, and recorded in the Recorder's office of Will County, Illinois, on August 21st, A. D. 1893, in Book 3C0 of Records, page 535.

All of said premises lying and being situate in the County of Will, and in the State of Illinois.

The above described lands are to be conveyed to the District by a warranty deed.

Said parties are also to convey to the District by quit-claim deed all interest in the following described land, to-wit:

That part of Section twenty-seven (27), Township thirty-six (36) North, Range ten (10) East of the Third Principal Meridian, lying between the center thread of the Desplaines River and a line described as commencing at a point in the north and south center line of said section five hundred and thirty-two and thirty-three one-hundredths (532.33) feet south of the north line of said section; thence (true meridian) south 42° 02' west, four hundred and seventy-five and eighty-eight one-hundredths (475.88) feet; thence south 36° 51' west, three hundred and ninety-four and seventy one-hundredths (394.70) feet; thence south 34° 08' west, one hundred and sixtv-eight and sixty-five one-hundredths (168.65) feet; thence south 25° 00' west, three hundred and sixty-six and thirty one-hundredths (366.30) feet; thence south 35° 31' west, one hundred and forty-seven and fourteen one-hundredths (147.14) feet; thence south 35° 31' west, two hundred and seventy-eight and ninety-six one-hundredths (278.96) feet; thence south 31° 03' west, one hundred and fifty-four and forty one-hundredths (154.40) feet; thence south 30° 40' west, six hundred and thirty-nine and eighty-three one-hundredths (639.83) feet; thence south 18° 08' west, four hundred and fifteen and thirty-two one-hundredths (415.32) feet; thence south 11° 24' west, four hundred and fifty and forty-nine one-hundredths (450.49) feet; thence south 89° 09' east, thirty-five and eighty-five one-hundredths (35.85) feet; thence south 12° 56' east, fifty-two and seventy-five one-hundredths (52.75) feet; thence south 4° 12' west, one hundred and forty-three and ninety-two one-hundredths (143.92) feet; thence south 31° 35' west, one hundred and ninety-seven and ninety one-hundredths (197.90) feet; thence south 21° 24' west, one hundred and nineteen (119) feet; thence south 12° 41' west, seven hundred and eighty-seven and fifty one-hundredths (787.50) feet; thence

south 22° 27' west, two hundred and eighty-five and forty one-hundredths (285.40) feet; thence south 29° 29' west, two hundred and twelve and ninety one-hundredths (212.90) feet; thence south 24° 16' west, one hundred and fifty-nine and fifty-three one hundredths (159.53) feet, to a point on the south line of said section which is two hundred and eighty-three and forty-five one-hundredths (283.45) feet east of the southwest corner of said section, with the riparian rights thereof, situated in the County of Will, in the State of Illinois.

Respectfully submitted,

(Signed)

B. A. ECKHART,

*Chairman.*

W. H. RUSSELL,

THOMAS KELLY,

JOHN J. ALTPETER,

WM. BOLDENWECK,

L. E. COOLEY.

*Joint Committee on Finance and Engineering."*

COMMUNICATION FROM ALFRED HARLEV.

The Clerk presented a communication from Alfred Harlev, with reference to Section 1 of the Main Channel; and the communication was read.

Mr. Eckhart, seconded by Mr. Russell, moved that the communication be received and placed on file.

The motion prevailed unanimously and it was so ordered.

The following is

THE COMMUNICATION:

"WILLOW SPRINGS, Ill., May 11, 1894.

*To the Honorable Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I take this means of notifying you and all others, with any interest therein, that I claim to hold a legal, binding and valid contract for Section One of the Drainage Canal, that a case is now pending in my name against the Sanitary District of Chicago in the Circuit Court of Cook County, and that I have filed bond to perfect an appeal to the Appellate Court to preserve said contract, and I hereby warn you and all others to a strictly accountability for any interference in my rights under my contract or from touching, moving, displacing or using any of the tools, materials, apparatus, goods, chattels, houses or things comprising, apper-

taining or belonging to me or my plant on such Section One.

I am advised of my legal rights and will maintain them.

Very sincerely yours,

(Signed) ALFRED HARLEV."

PLANS FOR CLEANSING SOUTH BRANCH OF CHICAGO RIVER TO BE PREPARED.

Mr. Kelly presented an order directing the Chief Engineer to investigate and prepare plans for collateral works for cleansing the South Branch of the Chicago River; and the order was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Chief Engineer directed in accordance with the same.

The following is

THE ORDER:

"Inasmuch as no plans have been matured for securing a proper flow through the South Branch of the Chicago River, south of the West Fork thereof; and

WHEREAS, It is a well known fact that no portion of the said Chicago River is made the receptacle of so large a volume of organic matter as is the stretch in question; and

WHEREAS, The condition of these waters is revolting and a menace to the health of the portions of the city adjacent thereto; therefore be it, and it is hereby

*Ordered*, That the Chief Engineer give the situation careful investigation and consideration, and that he formulate a scheme and cause plans to be prepared and presented to this Board for consideration of such collateral works as, in his judgment, will cleanse the said South Branch, and contribute to the health of those portions of the city adjacent thereto, to the end that the work which must be done to attain these results, may be entered upon and carried on simultaneously with the work of the Main Channel now under construction."

CONTINUATION OF HISTORY OF DISTRICT.

Mr. Boldenweck presented an order authorizing and instructing the Commit-

tee on Ceremonies to have prepared a continuation of the history of the "Drainage Channel and Waterway," similar to the volume already published; and the order was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the order be referred to the Committee on Ceremonies.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly and Wenter—six (6). Nays—Messrs. Cooley, Prendergast and Russell—three (3).

Upon which result the President declared the motion carried, and the order so referred.

The following is

THE ORDER:

"WHEREAS, It is important for the purpose of the Sanitary District of Chicago that all the facts relating to the drainage channel and waterway which it is now constructing should be at once compiled and so classified and indexed as to be readily accessible.

WHEREAS, The History of the Drainage Channel and Waterway project recently completed ends with the inauguration of the work on September 3, 1892, and much relating to the work since that date of immediate and paramount interest remains to be written.

WHEREAS, The control over the Chicago River, both for commercial and sanitary purposes, should be definitely vested in the Board of Trustees of the Sanitary District of Chicago, as contemplated by the law creating the Sanitary District, thus ending the perpetually recurring conflict of authority between the City of Chicago and the National Government, and this can be best accomplished by a concise presentation of the facts concerning the physical condition of the river, its width, depth, dockage, bridges, piers, abutments, current, discharge of sewage into, floods, overflows, enlargement, etc.

WHEREAS, The discharge of the sewage of one-sixth of the population of Chicago directly into Lake Michigan is a serious menace to the future of the city, and the law of the Sanitary District apparently contemplated that this evil should be corrected by the Trustees of the Sanitary District, but who cannot well act until the people are correctly and fully informed as



to the extent and growth of this evil and the possible means of a change in method.

WHEREAS, A diversion channel connecting the North Branch of the Chicago River with Lake Michigan across the city at or near its northern boundary, and possibly one connecting the Desplaines River with Lake Michigan may be a necessity of the near future, and this cannot be accomplished unless the impossibility of maintaining an inoffensive stream in the North Branch, and one not subject to dangerous overflow in the Desplaines, is shown by the facts of history.

WHEREAS, Future conflict of authority and jurisdiction between the Trustees of the Sanitary District and the Illinois and Michigan Canal Commissioners and a useless expense to the State in maintaining two waterways through the same territory, may be averted by a complete statement of the past relations and statutory purposes of the two Boards; and

WHEREAS, It is equally important that the Board of Trustees of the Sanitary District of Chicago should have at its immediate command an accurate and complete description of the Main Channel now in process of construction, methods of excavation and cost, forms of contracts and methods of dealing with contractors, extent, cost and means of acquirement of right of way, diversion of the Desplaines River, bridges and dealings with railroads, facts affecting the South Fork of the South Branch of the Chicago River, the proposed extension of the Main Channel from the vicinity of Lockport to Lake Joliet, an outlet to Lake Michigan, the Hennepin Canal,

finances of the Sanitary District, the administration of the affairs of the Sanitary District, its policing and Sanitary arrangements; a history of the efforts to secure temporary relief from the effects of a contaminated river and of alternative schemes for drainage; facts relating to a future inland harbor, dockage and manufacturing along the Main Channel, water power, development of valley interests, aid from the State and National Government in extending the channel further to the west and south, and similar subjects; therefore be it

*Ordered*, That the Committee on Ceremonies be instructed to have prepared at once a continuation of the History of the Drainage Channel and Waterway from the inauguration of the work on the Main Channel to the present time, covering the topics suggested and such others as may have a bearing upon the undertaking, with a view to furnishing the public the information necessary to a correct understanding of the work of this Board and enabling the Board itself to command such information for its own use at a moment's notice, such history, as continued, to be contained in a volume, similar in size, extent, typography, printing and binding to the volume already published, the cost of compilation not to exceed the rate of \$10 per 1000 words."

#### ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*



May 16.]

—1955—

[1894.

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

MAY 23, 1894.

#### OFFICIAL RECORD.

*(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and twenty-third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, May 23, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly and Wenter—six (6), and subsequently Messrs. Gilmore and Prendergast, making a total of eight (8) members, were present.

#### MINUTES.

The minutes of the regular meeting

held May 16, 1894, were approved as printed, on motion of Mr. Boldenweck, seconded by Mr. Kelly.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### Construction Account—

McArthur Bros. (Sec. 2, May 16, 1894).....	\$ 11,210 95
Gilman & Co. (Sec. 3, May 16, 1894).....	5,777 10
McArthur Bros. (Sec. 4, May 16, 1894).....	15,820 88
The Qualey Construction Co., (Sec. 5, May 16, 1894).....	3,356 50
Mason, Hoge & Co., (Sec. 6, May 16, 1894)	4,819 50
Mason, Hoge & Co., (Sec. 7, May 16, 1894)	3,327 19
Mason, Hoge, King & Co. (Sec. 8, May 16, 1894) .....	13,465 16

Halvorson, Richards & Co. (Sec. 9, May 16, 1894).....	\$10,362 28
E. D. Smith & Co. (Sec. 10, May 16, 1894).....	18,760 00
Mason, Hoge & Co. (Sec. 11, May 16, 1894).....	8,737 31
Mason, Hoge & Co., (Sec. 12, May 16, 1894).....	5,270 12
Mason, Hoge & Co., (Sec. 13, May 16, 1894).....	11,446 09
Smith & Eastman (Sec. 14, May 16, 1894).....	4,985 75
Heldmaier & Neu (Sec. B, May 16, 1894).....	23,303 70
Western Dredging & Improvement Co. (Sec. C, May 16, 1894).....	3,701 25
E. D. Smith & Co. (Sec. D, May 16, 1894).....	10,179 36
Ricker, Lee & Co. (Sec. F, May 16, 1894).....	2,079 58
Gahan & Byrne (Sec. G, May 16, 1894).....	1,719 90
Christie & Lowe (Sec. I, May 16, 1894).....	5,823 13
Christie & Lowe (Sec. K, May 16, 1894).....	1,181 25
The Heidenreich Co. (Sec. L, May 16, 1894).....	2,559 77
The Heidenreich Co. (Sec. M, May 16, 1894).....	939 88
Heldmaier & Neu (Sec. 1, completing work below Station 733, final, May 1, 1894)....	3,652 84
Heldmaier & Neu, (Sec. 1, Willow Springs road levee, May 15, 1894).....	365 86
The Qualey Construction Co. (Sec. 5, spoil removed from existing banks, May 16, 1894).....	891 00
Western Stone Co. (Sec. 10, extra, special work at Quarry 5, Jan. 23, 1894).....	18 95
Heldmaier & Neu (Sec. A, extra, completing levee, Stations 692 to 710, May 16, 1894)....	2,268 00
Heldmaier & Neu (Sec. A, I. & M. Canal bank, May 1, 1894)...	1,168 67
Heldmaier & Neu (Sec. A, I. & M. Canal bank, May 18, 1894)...	1,377 29
	<hr/> \$178,563 76

## ENGINEERING DEPARTMENT.

J. R. Davis & Son (test pits, east of Summit).	\$133 92
J. H. Miller and F. J. Walter (Board, flood party).....	29 15
W. T. Keating (emergency).....	94 75
W. T. Keating (emergency).....	24 50
	<hr/> \$ 282 32

## LAW DEPARTMENT.

Jas. M. Purcell (expert stenographer)...	\$ 58 05
Jas. H. Gilbert, Sheriff, Cook County (service).....	23 35
Orrin N. Carter (expense).....	526 64
Chas. H. Bryce (traveling).....	4 30
	<hr/> \$ 612 34

## GENERAL ACCOUNT.

Chicago Edison Co. (electric lighting)....	\$ 23 55
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## POLICE DEPARTMENT.

J. H. Banks (coal, etc.)\$	27 62
R. Chester Frost & Co. (police stars).....	11 50
John Naghten & Co. (insurance, Hyman Avenue Station).....	37 50
	<hr/> \$ 76 62

Grand total..... \$179,558 59

Mr. Boldenweck, seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending May 19, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, May 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employees in each department for the week ending May 19, 1894, as the same have been reported to me:

Engineering Department.....	113
Clerical Department.....	4
Law Department.....	8



Treasury Department..... 1  
Police Department..... 48

Total employees..... 174

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

RETURN OF MONEY FOR PORTION OF  
"WILSHIRE ET AL." LANDS NOT  
TAKEN.

The Clerk presented a report from the Attorney, accompanied by check (\$641.64), being money returned from payment made for Frances M. Wilshire et al. lands, for small portion of said lands not taken by District, the same having been used by the Chicago, Madison & Northern Railroad Company; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk directed to deposit the enclosed check (\$641.64) with the Treasurer of the District, to the credit of the Law Department Land Account.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly and Wenter—six (6). Excused and not voting—Mr. Gilmore—one (1). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk directed to deposit the enclosed check (\$641.64) with the Treasurer of the District to the credit of the Law Department Land Account.

The following is

THE REPORT:

"CHICAGO, May 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—At the time of the purchase of a part of the west half (W.  $\frac{1}{2}$ ) of the northwest quarter (N. W.  $\frac{1}{4}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) North, Range thirteen (13), East of the Third Principal Meridian, by the District from Frances N. Wilshire et al., a condemnation suit was already pending for a small portion of the same in the southwest corner of the tract, said suit having been begun by the Chicago, Madison and Northern Railway Company,

but same not having been shown on our opinion of title.

On the acquisition of the Wilshire interest, I caused the Sanitary District to be substituted as a party defendant in said suit. Upon consultation with the Trustees it was thought best to settle with said railroad company, now represented by the Illinois Central Railroad Company, at the same price per acre for the land taken by it as was paid for same by the District.

The amount taken is only twenty-one one-hundredths (21-100) of an acre. I transmit herewith the check of the Illinois Central Railroad Company, payable to the order of the Sanitary District of Chicago, in the sum of six hundred and forty-one and sixty-four one-hundredths (\$641.64) dollars in payment for said land, and recommend that said settlement be approved by your Honorable Body, and said amount be credited to the land account. The fraction of land taken is described as follows, to-wit:

That part of the northwest quarter (N. W.  $\frac{1}{4}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) North, Range thirteen (13), East of the Third Principal Meridian, described as follows, to-wit:

Commencing at the southwest (S. W.) corner of said northwest quarter (N. W.  $\frac{1}{4}$ ) of said northeast quarter (N. E.  $\frac{1}{4}$ ) of said section and running thence north on the west (W.) line of said northeast quarter (N. E.  $\frac{1}{4}$ ) to a point which is forty-six (46) feet northwesterly from the center line of the main track of the Chicago, Madison and Northern Railroad, measured at right angles thereto; thence northeasterly, parallel with said center line and forty-six (46) feet northwesterly therefrom, to a point in the west (W.) line of land set apart to George Wilshire in a certain partition proceeding lately pending in the Superior Court of Cook County, Illinois, case number on the docket of said court 88,511, said point being two hundred and twenty-nine and forty-seven one-hundredths (229.47) feet north of the south (S.) line of said northwest quarter (N. W.  $\frac{1}{4}$ ) of said northeast (N. E.  $\frac{1}{4}$ ) of said section; thence southwesterly, in a straight line, to a point in the south (S.) line of said northwest quarter (N. W.  $\frac{1}{4}$ ) of said northeast quarter (N. E.  $\frac{1}{4}$ ) of said section, one hundred and fourteen and fifty-seven one-hundredths (114.57) feet east of the southwest (S. W.) corner of said northwest quarter (N. W.  $\frac{1}{4}$ ) of said northeast quarter (N. E.  $\frac{1}{4}$ ) of said section; thence west on said south (S.)

line to the place of beginning, containing twenty-one one-hundredths acres of land, more or less; said premises lying and being situate in the County of Cook, in the State of Illinois.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
*Attorney."*

(Accompanied by check \$641.64.)

PAYMENT OF TAXES ON ACQUIRED RIGHT  
OF WAY LANDS.

The Clerk presented a report from the Attorney, accompanied by schedule, recommending that the Clerk be authorized and directed to pay, on the voucher of the Attorney, to the County Treasurer of Cook County, the amount of the taxes for 1893, on right of way lands as set forth in the report and accompanying schedule; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosure, placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to pay, on the voucher of the Attorney, to the County Treasurer of Cook County, the amount of the taxes for 1893 on right of way lands, as set forth in the report and accompanying schedule.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, the recommendations made in the report concurred in, and Clerk authorized and directed to pay, on the voucher of the Attorney, to the County Treasurer of Cook County, the amount of the taxes for 1893, on right of way lands as set forth in the report and accompanying schedule.

The following is

THE REPORT:

"CHICAGO, May 23, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—In the purchase of lands during the past year it has been the policy of the Joint Committee on Finance and Engineering to which the negotiations were entrusted to require a transfer free from all liens or encumbrances, including the taxes for 1893. In a few

cases, however, where the agreement for purchase was made within but a few weeks of the first of May and when it was manifestly to the advantage of the District in agreeing upon terms the land was taken subject to taxes. These were not payable until some months after the deals were closed.

In one or two cases also, where the seller has agreed to pay taxes he has neglected to do so, although notified by this Department so to do. In these cases the District must pay the taxes in order to prevent a sale of the land for same, and also that it may be in a position to recover back from the warrantors under their deeds.

A full list of the lands on which the taxes should be paid by the District for either of the above causes is herewith transmitted showing the amounts respectively due. It was impossible to prepare the list until after the first of May as it could not be known until then whether the previous owners had paid the taxes in accordance with their agreements.

I would recommend that the Clerk be authorized and directed to pay, upon the voucher of the Attorney, to Charles Kern, Treasurer of Cook County, the sum of four thousand and eight and ninety-two one-hundredths (\$4,008.92) dollars in full payment of the portion of the taxes for 1893 payable by the Sanitary District on the lands described on the schedule hereto attached.

One tract is omitted from the list for the reason that there was no separate assessment of the portion covered by the Santa Fe right of way and it will require a few days yet before the matter can be adjusted with that road.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
*Attorney."*

(Accompanied by schedule of lands.)

ADDITIONAL BONDS OF M'ARTHUR  
BROTHERS ON SECTIONS 2 AND 4.

Mr Eckhart, Chairman, presented a report from the Committee on Finance, transmitting additional bonds given by McArthur Brothers, contractors, on Sections 2 and 4, and recommending that the said bonds be approved and placed on file; and the report was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the bonds be approved, and the report adopted, ordered printed and with enclosed bonds, placed on file.



On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the bonds approved, and the report adopted, ordered printed, and with enclosed bonds, placed on file.

The following is

THE REPORT:

“CHICAGO, May 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance has thought it advisable to cause additional bonds to be given for the work on Sections two (2) and four (4). It therefor, transmits herewith such additional bonds in the sum of one hundred thousand (\$100,000.00) dollars each, given by McArthur Brothers for said Sections two (2) and four (4) respectively, and recommends that the same be approved and placed on file.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

THOMAS KELLY,  
Committee on Finance.”

(Accompanied by two (2) completed bonds, \$100,000 each.)

REPORT ON ADDITIONAL MEANS OF  
TRANSPORTATION FOR ENGINEERING  
DEPARTMENT.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering with reference to and accompanied by a report from the Chief Engineer, asking the establishment of additional means of transportation along the Main Channel for the Engineering Department, presented and referred to that Committee at the meeting held May 16, 1894, (page 1947 of the Proceedings,) recommending the provision of additional means of transportation, as set forth in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and, with enclosure, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and, with enclosure, placed on file, and the recommendations made in the report concurred in.

The following is

THE REPORT:

“CHICAGO, May 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Joint Committee on Finance and Engineering, to whom was referred the report of the Chief Engineer, asking the establishment of additional means of transportation along the Main Channel for the Engineering Department, at the meeting held May 16, 1894, (page 1947 of the Proceedings,) respectfully report that they have considered the same, and have been convinced of the necessity of furnishing what the Chief Engineer requests.

Your Committee therefore recommend that the Marshal of the District be instructed to make requisition for a wagon and two horses, to be kept at Brighton Park, under the supervision of the Police Department, for the purposes as set forth in the report of the Chief Engineer.

Said report is returned herewith for filing.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

L. E. COOLEY.

THOMAS KELLY,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,

*Joint Committee on Finance and Engineering.”*

(One (1) enclosure.)

REPORT ON SALE OF CLAY EXCAVATED  
FROM MAIN CHANNEL.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a communication from Frederick Krietenstein, concerning the purchase from the District of clay excavated from the Main Channel, presented and referred to that Committee at the meeting held April 18, 1894, (page 1866 of the Proceedings,) and recommending that the Clerk be directed to advise Mr. Krietenstein as set forth in the report; and the report was read.



Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and with enclosure, placed on file, and the recommendations made in the report concurred in.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

"CHICAGO, May 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the communication of Frederick Krietenstein, in regard to the use of clay for brick-making, between Robey street and Kedzie avenue, presented to the Board and referred to the Joint Committee on Engineering and Finance at the meeting held April 18, 1894, (page 1866 of the Proceedings), your Committee reports as follows:

Sections N and O, covering the territory in question, have been let to contract, in which it is provided that all material excavated, except that required for grading, shall be removed from the right of way of the District.

We therefore recommend that the Clerk be instructed to advise Mr. Krietenstein accordingly.

The communication is herewith returned for filing.

Very respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

B. A. ECKHART,

WM. BOLDENWECK,

THOMAS KELLY,

JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure,)

#### REPORT ON SAVING OF BRIDGE MASONRY STONE ON SECTION 7.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a report from the Chief Engineer, asking instructions with reference to the saving of stone for bridge masonry under the contract on Section 7, presented and referred to that Committee at the meeting held May 16, 1894, (page 1947 of the Proceedings) and recommending that the Chief Engineer be instructed to have the stone quarried and reserved, as provided in the stipulations

of the contract for said section; and the report was read.

Mr. Cooley, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and with enclosure, placed on file, the recommendations made in the report concurred in, and the Chief Engineer instructed as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, the recommendations made in the report concurred in and the Chief Engineer instructed as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, May 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the recommendation contained in the report of the Chief Engineer, presented and referred to the Joint Committee on Engineering and Finance at the meeting held May 16, 1894, (page 1947 of the Proceedings,) that certain stone, suitable for bridge masonry, on Section seven (7), should be saved, as provided in the stipulation with Mason, Hoge & Company, of April 20, 1894, (page 1888 of the Proceedings,) and the request of the Chief Engineer for instructions in the premises, your Committee reports as follows:

We are of the opinion that the stone should be quarried and reserved for use as provided in the stipulation above referred to, and recommend that the Chief Engineer be instructed to exercise the option as therein provided for.

The report of the Chief Engineer is herewith returned for filing.

Very respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

B. A. ECKHART,

THOMAS KELLY,

WM. BOLDENWECK,

JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure.)

## ACTION ON RELETTING OF SECTION ONE.

Mr. Cooley, Chairman, presented a majority report from the Joint Committee on Engineering and Finance—with reference to and accompanied by a report from the Chief Engineer, with tabulations of bids on Sections 1, N and O, presented and referred to that Committee at the meeting held April 20, 1894 (page 1878 of the Proceedings) and also a supplemental report to the Committee from the Chief Engineer and Superintendent of Construction, concerning the bids received on the readvertised Section 1—recommending the awarding of the contract for said section to Griffiths & McDermott and further recommending the return of checks deposited by unsuccessful bidders on that section and of all checks held on Sections N and O; and the report and accompanying supplemental report were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the majority report be adopted, with supplemental report, ordered printed, and with all enclosures placed on file, the recommendations made in the report concurred in and the Clerk authorized and directed to return bid checks, as provided in the report.

Mr. Eckhart presented a minority report from the same Committee, recommending the awarding of the contract for said Section one to Johnson, Bradley & Gobel; and the report was read.

Mr. Eckhart, seconded by Mr. Altpeter, moved, as a substitute, that the minority report be adopted, and, with majority report, ordered printed and placed on file, and the recommendations made in the minority report concurred in.

During the discussion the President called Mr. Kelly to the chair, but resumed the chair before a vote was taken.

On roll call on the substitute the vote stood: Yeas—Messrs. Altpeter, Eckhart and Gilmore—three (3). Nays—Messrs. Boldenweck, Cooley, Kelly, Prendergast and Wenter—five (5.)

Upon which result the President declared the substitute lost.

On roll-call on the original motion of Mr. Cooley on the adoption of the majority report, the vote stood: Yeas—Messrs. Boldenweck, Cooley, Gilmore, Kelly, Prendergast and Wenter—six (6). Nays—Messrs. Altpeter and Eckhart—two (2).

Upon which result the President declared the motion carried, the majority report adopted, with supplemental re-

port and minority report, ordered printed, and, with all enclosures, placed on file, the recommendations made in the majority report concurred in, and the Clerk authorized and directed to return bid checks, as provided in the majority report.

The following is

## THE MAJORITY REPORT, WITH ACCOMPANYING SUPPLEMENTAL REPORT:

“CHICAGO, May 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance, to whom was referred the bids on Section one (1), on April 18, 1894, (page 1878 of the Proceedings) report as follows:

Before a conclusion had been reached, on April 24, the Board was enjoined from reletting the section, by the former contractor. After elaborate argument by counsel, Judge Smith dissolved the injunction on May 11, (see page 1948 of the Proceedings for the opinion of the Judge.) Since that date, the Committee has been diligent in reaching a conclusion.

The Committee regards a wise determination as extremely important, as Section one (1), on account of its magnitude, and the extraordinary character of the material, will probably measure the date when the Channel may be completed as a whole. Aside from the River Diversion, comparatively little has been done, and there remain but twenty-four months in which to carry out the contract. The year is already so far advanced that much of the most available working season will necessarily be consumed in preparation, so that there will remain but one full working season in which favorable weather may be relied upon, and the contractor who carries this section through on time should possess unlimited resources and executive ability combined with skill and experience in this line of work.

The Committee is unwilling to entertain any possible delay beyond 1896, such as must be contemplated, should the section be let to parties whose resources and experience are yet to be demonstrated and whose methods are experimental. The early use of this Channel is a paramount necessity that will not justify a saving in cost that is entirely problematical until the lowest bidder shall have fully demonstrated his competence. Any saving that involves possible delay is apparent rather than



real, as the fixed charges in 1896 and thereafter will represent over one million dollars per year, or as much as is involved in the section under discussion.

The Committee, in its consideration of the matter, is greatly embarrassed by the fact that the five lowest bidders are men without special experience in this kind of work, and it is to be regretted that the Board has not entirely excluded this class of bidders in its advertisements. It is significant that the next five bids are by professional contractors of established reputation and long experience in earth and rock work, and in difficult excavation, and further that the range of these five bids is less than four per cent from the mean.

The judgment of these five bidders as to the proper cost of Section one (1), were they called as experts, would be conclusive in any court. The Chief Engineer and the Superintendent of Construction have advised the Committee that these prices are as low as the Board can safely entertain with any reasonable assurance that the work will be diligently prosecuted to a speedy conclusion.

This Board has had a disastrous experience in letting work to the lowest bidder. In some cases, capable contractors have erred in judgment in regard to the cost of removing material, about which proper information was not available. In a greater number of cases the Board has awarded contracts to men of questionable experience, relying on the bond, the assurance of business acquaintances and the solicitude of influential friends. The results have demonstrated that a bond is no adequate recourse, and that the only satisfactory contract is one involving proper consideration, and under the personal charge of men with adequate resources, executive ability and skill. In the inception of the work, the grounds for anticipating failure were too indefinite to warrant the Board in the rejection of bids, which later experience shows us clearly it would now be folly to entertain. The exigency of this work is such that a proper feeling of responsibility on the part of the Board requires the rejection of all bids, about which there may be a reasonable doubt or even a feeling of concern. A certainty that the work will be executed lies above small margins between doubtful bidders or any rights that they may assume to possess.

The Committee has therefore considered the five lowest bids with manygivings, and after a painstaking investigation has ruled out three of them on ac-

count of insufficient capital and inadequate conception of the work to be done. The majority of the Committee also feel that the bids of the Johnson & Bradley Company should be ruled out for the same reason and for the further reasons herein set forth.

The Johnson & Bradley Company does not exist in fact, and therefore in a strictly technical sense, the bid is incompetent under the terms of the advertisement. The bid is evidently made in the expectation of organizing such a company in the event of an award. The advertisement further requires that all the parties interested in the bid shall sign the same; but it develops, however, that after both Johnson and Bradley are shown to be financially insufficient, that a third party, not mentioned in the bid, is introduced as the financial backer. No questions are raised as to Mr. Gobel's financial resources, and that he is a successful builder of buildings.

In the award of Section G, (December 23, 1893, page 1641 of the Proceedings) this Committee defined its position in regard to letting to the lowest bidder even when a bond could be furnished and financial backing secured. In that case, the lowest bidder associated with himself men of unquestioned resources, after his own capital had been found insufficient, and the Committee held without division that such practices were irregular and not to be countenanced, as thereby weak bidders and subsequent speculation in contracts were encouraged. The majority of the Committee regard the injection of Mr. Gobel into the lowest bid as coming within the precedent cited above.

The lowest bid on Section one (1) is what is technically known as an unbalanced bid, in that the price for cement masonry retaining walls is put at \$1.50 per cubic yard, or at about one-half of the actual cost, as estimated and bid by contractors of established reputation. This item makes a deficiency of some \$90,000, an amount that if spread over the glacial drift would reduce the price over five cents a yard, or less than 34½ cents, and if spread over the rock the reduction would be nearly 20 cents per yard, or to less than 65 cents. If the deficiency is spread over the glacial drift and the rock proportionately, the prices will be approximately 36 and 75 cents respectively, prices admitted to be abnormally low. Could the aggregate price bid be regarded as sufficient, the protection of the District would require such a readjustment of the prices as would spread the deficiency over the glacial drift and rock. We are advised that



this is of doubtful legality; and further that any stipulation designed to secure the execution of the retaining wall contemporaneously with the removal of the drift and rock will be of doubtful practicability and difficult to enforce.

The Courts of the State of New York, and the Legislature as well, have declared unbalanced bids to be vicious and contrary to public policy in the public works of that State, and the majority of this Committee unhesitatingly subscribe to this doctrine and do not believe that such bids should be entertained.

It is explained that this bid is the result of a clerical error, which, however, the bidders are willing to profit by and of which the District is permitted to take advantage. When this bid was opened, the President of the Board called attention to the incongruity of the prices for retaining wall, and asked for an explanation, but no response was made, although the firm was represented on the floor. The error is one of that kind that in its practical bearing it is immaterial as to whether it be the result of accident or design.

It does not appear that anyone actively associated with this firm has demonstrated particular capacity for this line of work, and it does appear that experimental methods are to be relied upon. The Chief Engineer and Superintendent of Construction were instructed to examine the special methods which were to be applied, and for that purpose made a journey to the mining regions of Lake Superior, in company with a member of the firm and the Engineer. Their report is appended hereto. In their judgment, no methods were shown that were as serviceable as those now employed on various sections of our work, or that had any material bearing on the main items of cost involved in the excavation.

Your Committee is persuaded that to execute this work at the aggregate price bid would be extremely problematical, even were ample resources, executive ability, and proved skill, most happily combined, and weather conditions favorable.

We therefore conclude for all the above reasons that the bid of the Johnson & Bradley Company is informal and irregular, and that it is not responsible in the sense required to insure the completion of Section one (1), and should not be entertained for the reasons herein set forth.

The bid of Griffiths & McDermott is well-balanced, and the prices are not

sufficiently below those of contractors of special experience in this class of work, to raise serious doubts to their sufficiency. The firm has undoubted resources and executive ability, and seems to have good judgment and a due sense of the responsibility of the undertaking. The Committee, while it would much prefer a contractor of approved experience in this line of work, do not feel warranted in rejecting this bid, and believe that, with personal attention to the work and the services of skilled men, the contract will be carried out to the satisfaction of the District.

We are constrained therefore to recommend that Section one (1) be awarded to Griffiths & McDermott at the price of their bid, and on the basis of cement masonry in retaining walls.

We recommend further that this firm be directed to qualify by giving the required bond, under the direction of the Committee on Finance, subject to the approval of the Board, and that the Clerk be instructed to return the checks deposited by unsuccessful bidders on Section one (1), and also the checks held against bidders on Sections N and O.

The report of the Chief Engineer, accompanied by tabulations of the bids on Sections 1, N and O of the Main Channel, presented and referred to this Committee at the meeting held April 20, 1894, (page 1878 of the Proceedings) is returned herewith for filing.

Very respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

THOMAS KELLY,

WM. BOLDENWECK,

*Joint Committee on Engineering and Finance."*

(Two (2) enclosures.)

—  
This following is

THE SUPPLEMENTAL REPORT:

"CHICAGO, May 18, 1894.

*To the Committee on Engineering and Finance:*

GENTLEMEN—Pursuant to your request, we have been to inspect certain mining machinery and appliances in the upper peninsular of Michigan. We spent yesterday in Ishpeming, where we were shown much courtesy and given every facility for seeing what we desired to inspect, by Mr. Mills, Superintendent of the Cleveland

Mines. We saw some remarkably fine hoisting machinery, air compressors, pumps, etc. These plants are all costly, and no pains or expense seem to have been spared in making them efficient and permanent. We saw remarkable examples of long distance haulage from deep mines, by the use of cables, the course of which is diverted many times by passing over pulleys so located as to avoid the local obstacles. We also saw steam shovels working in the stock piles, but none of these were superior in design or construction to the general run of those now engaged upon our work; in fact we have some machines much more powerful than any we saw there, and the material in which they were working did not compare in hardness or tenacity with any of our tough clays, and afforded no parallel to the material on our difficult sections. As affording us a criterion for forming an opinion as to the feasibility or efficiency of the plans proposed by Messrs. Bradley & Johnson, the trip was a failure. We saw no examples of such construction as is proposed by them. As between ourselves there is a lack of unanimity of opinion as to the practical working of their plans. The Chief Engineer does not doubt the capacity of double drum, high power hoists, if such are used, and provided further that they are set upon staple foundations, but he doubts the ability of the contractors to supply such hoists with loaded cars as fast as they can be lifted. On the other hand, the Superintendent of Construction believes that the output from the pits when all of the faces are opened will be greatly in excess of the three double inclines proposed. As a matter of mathematics it is demonstrable that the three inclines will do the requisite amount of work, but there is no basis upon which to figure out the detentions and delays which are met with upon all works of this character. We know that where the appliances are first class these delays are reduced to a minimum under good systematic management. What the management of Messrs. Johnson & Bradley will be, we cannot venture to predict.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,  
Chief Engineer.  
U. W. WESTON,  
Supt. of Construction."

The following is

#### THE MINORITY REPORT:

"CHICAGO, May 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—We are unable to agree with the majority of the Committee as to the awarding of the contract for the work on Section one (1), referred to this Committee on April 18th, 1894. The reasoning of the majority report on many points does not meet with our approval, and we are of the opinion that, considering all the circumstances, the highest interests of the District will be best subserved by awarding the contract to Johnson & Bradley Company, the lowest responsible bidders.

The provision of the law requiring that all contracts should be let to the lowest responsible bidder is a wise one to prevent extravagance and improvidence, to cause the work to be done in the cheapest and best manner possible. In our judgment this provision should be so administered and construed as to accomplish this purpose in a reasonable and fair manner.

Johnson & Bradley Company are the lowest bidders on the work, figuring on the cement masonry wall basis which has been agreed upon by the Committee. While it is true that only two members of this firm, Ernest V. Johnson and Carl G. Bradley, signed the original bid, yet it was understood that Mr. Elias F. Gobel was a member of their firm when they made the bid, and Messrs. Johnson & Bradley so stated the first time they appeared before the Committee on Engineering and Finance, and thereupon the Committee requested that Mr. Gobel appear before them, in response to which request Mr. Gobel came before the Committee, presented a statement showing his net assets in excess of five hundred thousand dollars, stated that he was a member of the firm and expressed a willingness to enter into the contract and sign it individually with Messrs. Johnson & Bradley at the prices named in their bid. The records of the Committee will show that the statement in the majority report is incorrect to the effect that after Johnson & Bradley Company was shown to be financially insufficient they introduced another financial backer. The fact is as stated here; Mr. Gobel was understood to be a member of the firm from the start. The financial showing of Johnson, Bradley and Gobel is equal to that of any other bidder.



We cannot agree with the majority that in the letting of Section G the Committee held without division that the lowest bidder could not associate with himself in the work of other contractors. In several instances this Board has allowed persons to come in and sign the contract who did not sign the original bid. This was done in reletting the contract on Section three (3) and in the contracts on Sections L and M; besides the same principle was involved in the assignment of each of the eight sections which has been permitted by the District. Even if it had not been sanctioned by the District heretofore we believe it should be the policy of this Board to obtain as many strong contractors as possible on every contract, because it is of great advantage to the District and injures no one.

The argument of the majority report that only contractors with special experience in this kind of work should be awarded contracts is not sound. If that argument were followed no contracts could be let, as no great canals like the one under construction by this District have heretofore been completed in this country. The advertisements for bids have conformed to the law and any limitation on bidders different from the requirement of the advertisement would be improper and illegal.

The statement in the majority report that the judgment of certain 'five bidders as to the proper cost of the work on Section one (1) were they called as experts would be conclusive in any court' is certainly without foundation. Who ever heard of the opinion of any number of experts being held to be conclusive in any court? The opinions of experts vary the same as the opinions of contractors, and the opinions of contractors as to this work are shown by the bids received. This Board has no more right to say that the opinion of the five medium bidders should govern in deciding as to the cost of this work than the opinion of the five lowest or the opinion of the five highest. The argument that the Chief Engineer and the Superintendent of Construction have advised the Committee that certain prices are as low as the Board can safely entertain is certainly an improper one to follow. They are not under the law permitted to sit in judgment on the cost of this work.

We disagree with the majority of the Committee that this Board has had a disastrous experience in letting work to the lowest bidder. The fact is that the best contractors now on the work were

the lowest bidders, and the lowest bidders on at least five sections who failed to prosecute their work to the satisfaction of the District have assigned their contracts at a profit to contractors of undoubted experience and responsibility, proving conclusively that their bids were not too low.

The bid of Johnson, Bradley & Gobel on cement wall was \$1.50 and on dry rubble wall \$2.90 per cubic yard. They have stated to the Committee that these figures were transposed in their bid and that they intended to have them read \$1.50 for dry rubble wall and \$2.90 for cement wall, but they have expressed a willingness to enter into the contract on the basis of the bid and allow the District the benefit of this mistake, agreeing to build the cement masonry wall at \$1.50 per cubic yard, believing that they have a sufficient margin on the rest of the work to pay them for any loss on cement wall. Even if this mistake were corrected, the figures reversed and the contract let to them at \$2.90 a cubic yard for cement masonry wall, as they intended their bid to read, the aggregate of their bid would still be \$61,000 less than the aggregate of the bid upon which the majority of the Committee are in favor of letting this contract.

It has been urged in the majority report that the bid of Johnson, Bradley & Gobel was unbalanced; that the courts of the state of New York and the legislature had declared unbalanced bids to be vicious and contrary to public policy. This is not the law. The New York courts have held that an unbalanced bid is not necessarily objectionable; if it does not materially increase the total cost of the work it cannot be complained of. This being the law, the bid of Johnson, Bradley & Gobel is not objectionable, as instead of increasing the total cost of the work the mistake of the change of figures on the cement masonry wall lessens the cost by about \$84,000.

We believe that the majority report is in error in stating that the building of the retaining wall contemporaneous with the removal of the drift and rock will be of doubtful practicability. Johnson, Bradley & Gobel stated to the Committee that they intended to build the cement masonry wall in this manner and were willing to have a stipulation to that effect inserted in the contract. The Chief Engineer gave it as his opinion that this method was practicable.

The argument has been made with a good deal of vigor and persistence that



the bid of Johnson, Bradley & Gobel is too low, and that the work could not be done at their price. We do not believe that the Trustees have any right to reject a bid because they are of the opinion that the work cannot be done at the price bid, providing the bidder is responsible. If the principle is to be admitted that the Trustees are to be the judges as to the proper price for letting the work, without reference to the responsibility of the contractor, then the provision of the law requiring contracts to be let on sixty day's advertisement to the lowest responsible bidder is absolutely nullified. It is certainly not the province of the Trustees to let contracts to the highest responsible bidder instead of to the lowest. This would be a perversion of the law, against common sense and dangerous to public interests.

Experience so far as the work on Section one (1) has been carried on, as well as on the adjoining sections, shows that the material to be excavated varies greatly in character; a few rods may be of such a nature that it can only be excavated with great difficulty and expense, while the next few rods can be excavated much more cheaply and easily. The wide range of bids on this section demonstrates that experts do not agree as to the character of the work. To a large extent the cost of the work on this section is problematical, and from the data at hand it is impossible to say with any certainty that the bid of Johnson, Bradley & Gobel is not as near the fair and just price for this work as any bid submitted. Their experience, business and financial ability compares favorably in every way with the experience, business and financial ability of those contractors to whom it is proposed by the majority of this Committee to let this work. If Johnson, Bradley & Gobel are willing to risk their money, their time and their experience, the law requires and the best interests of the public demand that the contract should be awarded to them.

We cannot give our assent to the proposition that the necessities of finishing this work at any given time free the Trustees from all responsibility as to the requirements of the law or as to the cost of the work. The successful prosecution of a work of this magnitude depends very largely on its cost. Since the last careful estimates were made as to the total cost of this work certain portions of the channel have been enlarged by the Board, increasing the total cost of the work by several hundred thousand dollars, and the Trustees

have substantially agreed that it is necessary to build cement masonry walls in place of dry rubble walls, and this will cause an additional outlay of several hundred thousand dollars. In estimating the resources of the District it has been assumed that the assessed valuation of the property of the Sanitary District would increase from year to year. The assessed valuation for the present year, as well as for the last year—largely on account of the hard times—is much less than was anticipated and it is fair to assume that the assessed valuation for two or three years to come will not be materially increased. This being the fact, the net resources of the District, both from taxation and from the sale of bonds, will be less than have heretofore been estimated. It is easy to talk of the necessities of finishing this work at a given time, but it is absolutely essential in order to finish the work at any time that it be kept within the resources of the District.

We recommend that this contract be awarded to Johnson, Bradley & Gobel, thereby saving to the District \$145,000.

Respectfully submitted,

(Signed.)

B. A. ECKHART,

JOHN J. ALTPETER,

*Of Joint Committee on Engineering and Finance."*

NEW HOSPITAL SERVICE ON MAIN CHANNEL.

Mr. Gilmore, Chairman, presented a report from the Committee on Health and Public Order, with reference to and accompanied by the report of the Sanitary Inspector for the month of April, 1894, presented and referred to that Committee at the meeting held May 2, 1894 (page 1909 of the Proceedings), enclosing copy of proposed form of contract for the organization of an hospital service along the Main Channel, and recommending the presentation of the matter to the contractors for action; and the report was read.

Mr. Gilmore, seconded by Mr. Altpeter, moved that the report be adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report

adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in.

The following is

#### THE REPORT:

"CHICAGO, May 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the report of the Sanitary Inspector for the month of April, 1894, which was presented to the Board and referred to the Committee on Health and Public Order at the meeting held May 2, 1894, (page 1909 of the Proceedings,) your Committee have considered the same, and beg leave to report as follows:

Your Committee are of the opinion that the present arrangements for taking care of the sick and injured employes on the Main Channel are far from satisfactory—that there does not seem to be that thorough organization of the hospital service that should exist on a work of this magnitude, where such a large number of men are employed.

We believe that the proper method is to provide for the men in the hospitals located along the line of the work, instead of sending them to Chicago or Joliet, as is done at present, inasmuch as the hospitals in these places are frequently overcrowded, and are not prepared for the reception of outside patients. The lack of facilities for transportation is another weak feature of the present system.

We are of the opinion that an agreement on the part of the various contractors on a method of accomplishing this work should be had at once. The Committee, in conjunction with the Sanitary Inspector, have devised a plan, which we believe will give far better satisfaction to all concerned than the present inefficient and unsystematic manner in which this work is done. From what the Committee can learn, we are of the opinion that Dr. Chas. C. Sperry is a man capable of performing this work in a satisfactory manner.

The Committee concludes that a radical change from the present system must be made immediately, and earnestly hope for the cheerful co-operation of the contractors in accomplishing this much needed reform. A form of contract, drawn by Dr. Sperry, which we think will be satisfactory to both parties, is transmitted herewith.

Your Committee respectfully recommend that a copy of said form of contract be forwarded to each of the contractors on the work between Bridgeport and Lockport, with a communication setting forth the substance of this report, and urging prompt action in the matter.

The report of the Sanitary Inspector is returned for filing.

Respectfully submitted,

(Signed.) A. P. GILMORE,

*Chairman.*

JOHN J. ALTPETER.

*Committee of Health and Public Order."*

(Two (2) enclosures.)

OFFICES TO BE CLOSED MAY 30TH, "DECORATION DAY."

Mr. Altpeter presented an order, directing that the offices of the District be closed on Wednesday, May 30, 1894, "Decoration Day;" and the order was read.

Mr. Altpeter, seconded by Mr. Gilmore, moved the adoption of the order.

The motion prevailed unanimously, and the President declared the order adopted, and the offices of the District ordered closed, as provided in the order.

The following is

#### THE ORDER:

"*Ordered*, That the offices of the Sanitary District of Chicago be and they are hereby ordered closed on Wednesday, May 30, 1894, the same being 'Decoration Day'—a legal holiday."

#### ADJOURNMENT TO SPECIAL TIME.

Mr. Boldenweck, seconded by Mr. Cooley, moved that when the Board adjourn, it do adjourn to meet Tuesday, May 29, 1894, at 1:30 o'clock P. M.

The motion prevailed unanimously, and it was so ordered.

#### ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Kelly, the Board then adjourned, to meet Tuesday, May 29, 1894, at 1:30 o'clock P. M., pursuant to motion.

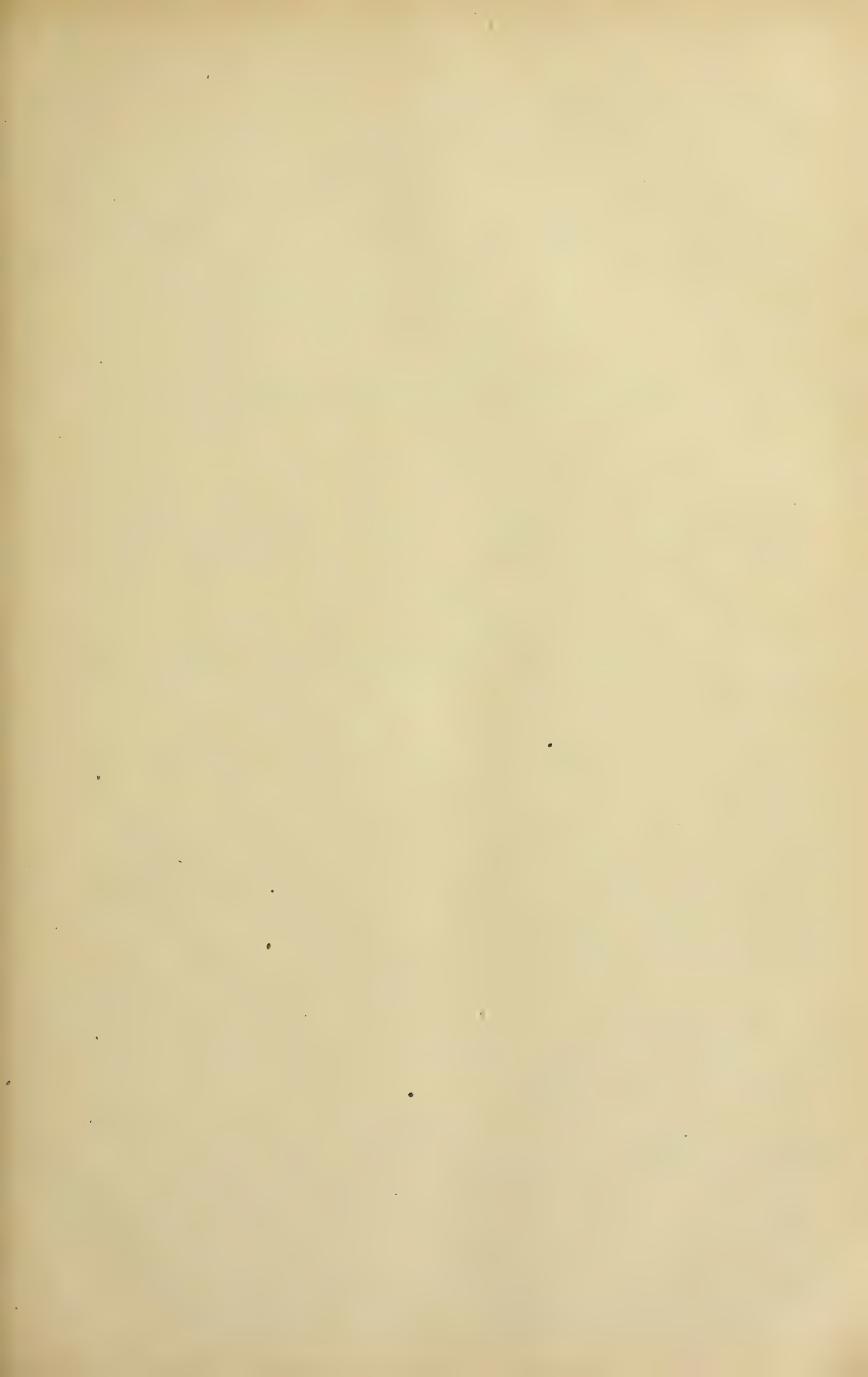
THOS. F. JUDGE,  
*Clerk.*

May 23,]

—1969—

[1894.







PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES,

—OF THE—

SANITARY DISTRICT OF CHICAGO.

---

MAY 29 AND 30, 1894.

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OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

ADJOURNED MEETING.

The adjourned session of the two hundred and twenty-third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Tuesday, May 29, 1894, at 1:30 o'clock P. M., pursuant to motion.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore and Wenter—six (6), and subsequently Mr. Kelly, making a total of seven (7) members, were present.

SUBSTITUTION OF CEMENT MASONRY FOR  
DRY RUBBLE WALLS ON MAIN  
CHANNEL.

The Clerk presented a report from the

Chief Engineer, accompanied by an order, with reference to the substitution of cement retaining walls, as already specified for Section 1, in place of dry rubble walls, as called for in the original specifications on certain sections of the Main Channel; and the report and order were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying order adopted.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying order adopted.



The following is

THE REPORT AND ACCOMPANYING ORDER:

"CHICAGO, May 28, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—Referring to my communication of August 2, 1893 (page 1361 of Proceedings), I then expressed the opinion that cement retaining walls would have to be resorted to in carrying out the necessary work of the District, because suitable stone was not found in the excavation to build the dry rubble walls according to specifications. My observations made for the months that have elapsed since that time have convinced me that we must use cement masonry throughout wherever retaining walls are required on our work. I therefore ask that you pass an order authorizing the substitution of cement masonry for dry rubble masonry in conformity with the specifications which have been submitted to you, and adopted, for cement masonry on Section No. 1.

This substitution of a different class of masonry from that covered by the original specifications also involves a readjustment of prices for which I ask that you make provision.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Accompanied by order.)

The following is

THE ORDER:

"WHEREAS, The development of the work upon rock sections has shown but little rock suitable for building retaining walls such as were called for in the original specifications under which these sections were let to contract; and

WHEREAS, This Board has, after careful inquiry and observation, decided that dry rubble walls should not be relied upon in a work of this magnitude, designed to be enduring; therefore, be it

*Ordered*, That the retaining walls to be constructed for preserving the sides of the Main Drainage Channel of the Sanitary District of Chicago, shall be laid in cement mortar in conformity with the specifications prepared by the Chief Engineer, and adopted by this Board, for Contract Section No. 1, and that the Chief Engineer be and he is hereby authorized and instructed to cause all retaining walls which must be built to

protect the sides of the said Main Channel to be built under and in accordance with the said specifications for cement masonry as adopted for said Section No. 1."

ADDITIONAL APPROPRIATION FOR RAISING CALUMET TERMINAL ROAD BED.

The Clerk presented a report from the Chief Engineer, with reference to the raising of the road-bed of the Chicago & Calumet Terminal Railway Company, for which work \$1,600 had been appropriated at the meeting held April 11, 1894 (page 1859 of the Proceedings), recommending the increase of the appropriation for said work, including certain other work already done there, to \$2,100: and the report was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the report be adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

The following is

THE REPORT:

"CHICAGO, May 28, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—On April 11th you passed an order authorizing an expenditure of \$1,600 for raising the Calumet Terminal Bridge, over Desplaines River, and approaches thereto. I have found it impossible to get this work done for this sum. E. D. Smith & Co. will do the work for the sum of \$2,100, this to include their bill for work done upon this road during the flood of March last amounting to \$238.05, so that the appropriation for the specific work asked for by me on April 11th will have to be increased \$261.95.

I therefore respectfully ask that you authorize me to have the work done as stated, making the appropriation \$2,100 in full payment of the work already done and of that required to be done by E. D. Smith & Co.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

## BUILDING OF WESTERN STONE CO. TRESTLE ACROSS SECTION 9.

The Clerk presented a report from the Chief Engineer, asking authority to have E. D. Smith & Company build a trestle for the Western Stone Company's track at Quarry No. 5, across the west end of Section 9, as provided in the report; and the report was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

## THE REPORT:

"CHICAGO, May 28, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On Section 10, Contractors E. D. Smith & Co. are approaching very close to the Western Stone Co's track and they are anxious to make arrangements for taking out the material under that track. This can best be done by putting a trestle across the Channel at the west end of Section 9. E. D. Smith & Co. could then complete their Channel and when this is done the trestle can be transferred to the present line of the track and Section 9 could be completed.

We have quite an amount of lumber on hand, accumulated on the different temporary works, which we can use in building this trestle, and we can probably arrange with E. D. Smith & Co. for framing and putting it in place.

I therefore ask authority to purchase such additional material as we may need, and arrange with E. D. Smith & Co. for framing and placing the same.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

## SAVING OF BRIDGE MASONRY STONE ON SECTION 8.

The Clerk presented a report from the Chief Engineer, with reference to the saving of bridge masonry stone on Section 8, the quantity of suitable stone to be taken from Section 7, under authority granted the Chief Engineer at the meeting held May 23, 1894 (page 1961 of the Proceedings), not being sufficient; and the report was read.

With reference to the report, by unanimous consent, the Chief Engineer appeared before the Board and explained the necessity of the extra authority.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed and placed on file, and the recommendations made therein with reference to the saving of stone on Section 8, be concurred in, to an amount not to exceed 20,000 cubic yards.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein with reference to the saving of stone on Section 8, concurred in, to an amount not to exceed 20,000 cubic yards.

The following is

## THE REPORT:

"CHICAGO, May 29, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—At your last meeting you passed an order exercising your option to save certain building stone on Section No. 7. An examination of the quarry since that time satisfies me that there is not the volume of stone to be had on that portion of Section 7 which I formerly thought could be obtained.

I find, however, that there is some good stone on Section 8 at a convenient point for saving.

I would recommend that if the same arrangements can be made on Section 8 as were made for Section 7 that they be entered into, as the quarry on Section 8 is convenient to points where we must use considerable quantities of dimension stone.

Respectfully submitted,  
(Signed) ISHAM RANDOLPH,  
Chief Engineer."

## COMPLETION OF LEVEE ON SECTION 3.

The Clerk presented a report from the Chief Engineer, with reference to the completion of the levee on Section 3, as set forth in the report, thus making the levee from the Spillway to Romeo road continuous; and the report was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the report be ordered



printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

THE REPORT:

"CHICAGO, May 28, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On taking up the question of levees throughout our River Diversion work I have to state that provisions have been made for a continuous levee from the Spillway to Romeo Road, with the exception of Section No. 3. On this section there was no River Diversion work required and the contractors have prepared an inner levee which protected them from flooding. While the other levee is not necessary for the protection of the work I still feel that it is desirable that one should be built so as to make the improvement continuous between the points named.

I have had this matter up with the contractors but have so far failed to make an agreement with them as to the price for doing the work.

This levee involves about 70,000 yards of material and I would recommend that it be built, if arrangement can be made for so doing, at a cost not to exceed 15 cts. per yard.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

HARLEV CLAIM FOR EXTRA WORK ON  
WILLOW SPRINGS ROAD.

The Clerk presented a report from the Chief Engineer, with reference to the claim of Alfred Harlev for work said to have been done on the Willow Springs road in November and December, 1893, and concerning payments already made against the claim; and the report was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the report be ordered printed and referred to the Committee on Finance, with instructions to report back at the next meeting.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

THE REPORT:

"CHICAGO, May 29, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—There is a bill against this District for work performed by Alfred Harlev on the Willow Springs Road in November and December of last year amounting to \$778.22. This work was ordered by you on November 15th, 1893, to be done by the Contractors for Sections A and B, but as it turned out they were not equipped for such work at that time, so the Superintendent of Construction arranged with Mr. Harlev for doing what was required.

This bill has been discussed in Committee but no order has been passed by you for its payment. I have Mr. Harlev's order to pay \$295.34 to men who were employed upon this work, and I have paid to the men designated by him \$292.42 and charged to this account as authorized by your order of March 28th. On April 11th you passed an order directing the Chief Engineer to pay Dr. Nicholas Re the sum of \$99.60 (shown to be due him for medical attendance and hospital service rendered certain employes of said Harlev) and to deduct the said amount from the balance due on the construction account hereinbefore specified. This payment I made and took receipt for same from Dr. Re.

The account of Alfred Harlev therefore has charged against it the following items:

Amount of his order to pay labor..\$295 34  
Amount paid Dr. Re..... 99 60

\$394 94

which deducted from the bill as rendered (\$778.22), leaves a balance due of \$383.28. Your order, however, directed the retention of a further sum of \$85.24 on account of moneys collected from the men for hospital dues. Mr. Harlev asserts, however, that he paid out this amount, and more, to another physician for medical attendance upon the men, and that for this reason it should not be deducted from his account.

This account has been standing now for several months and it should be vouchered and disposed of. It is altogether separate and distinct from the contract for Section No. 1.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*



## FIXING OF PRICE FOR CEMENT MASONRY WALLS.

Mr. Cooley, Chairman, presented an order from the Joint Committee on Engineering and Finance, authorizing and instructing the Chief Engineer to arrange for the construction of cement masonry walls in place of dry rubble walls on the sections and at the prices as set forth in the order; and the order was read.

Mr. Cooley, seconded by Mr. Boldenweck moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Chief Engineer authorized and instructed to arrange for cement retaining walls in place of dry rubble walls, in accordance with the order.

This following is

## THE ORDER:

“WHEREAS, This Board has determined upon cement masonry for retaining walls on Contract Section one (1) to fourteen (14), inclusive; and

WHEREAS, The following prices have been fixed for said cement masonry, to-wit:

Section 1, \$2.90 per cubic yard, by contract awarded May 23, 1894; Section 5, \$3.25 per cubic yard, by agreement of April 4, 1894; Section 6, \$3.25 per cubic yard, by agreement of April 20, 1894; Section 7, \$3.25 per cubic yard, by agreement of April 20, 1894; and the contractor for Section three (3) has agreed to accept \$3.25 per cubic yard for the cost of said wall on said Section three (3); and,

WHEREAS, The above agreements provide for some two-thirds of all retaining walls required on the work now let to contract, and said price of \$3.25 per cubic yards appears to be a reasonable limit for the cost of said cement masonry on the remaining sections; therefore, be it

*Ordered*, That the Chief Engineer be and he is hereby authorized to arrange, at a cost not exceeding \$3.25 per cubic yard, for the construction of retaining walls on Sections two (2) and four (4), and Sections eight (8) to fourteen (14), inclusive, and that said Chief Engineer, in conjunction with the Attorney, mature any necessary agreements in the premises, and report the same to the Board.”

## SATURDAY CLOSING OF OFFICES.

Mr. Altpeter presented an order, directing that the offices of the District be closed at noon on all Saturdays from June 1 to September 1, 1894, as provided in the order; and the order was read.

Mr. Altpeter, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the offices of the District ordered closed on all Saturdays from June 1 to September 1, 1894, as provided in the order.

The following is

## THE ORDER:

“*Ordered*, That the offices of the Sanitary District of Chicago be and the same are hereby ordered closed at twelve (12) o'clock noon on every Saturday from June 1, to September 1, 1894, and that said half holiday be and the same is hereby extended to all the employes of said Sanitary District; and be it further

*Ordered*, That the Chief Engineer of said Sanitary District be and he is hereby authorized and empowered to suspend the above order so far as the same applies to employes in the field, whenever, in the judgment of said Chief Engineer, their services may be required, and in such case, the said Chief Engineer may substitute the equivalent of said Saturday half-holiday at such other times as the interests of the service may permit.”

## COMMUNICATION ON REPAIR OF CANAL BANKS AT SUMMIT.

The Clerk presented a communication, addressed to President Wenter, by John Ryan, General Superintendent of the Illinois & Michigan Canal, with reference to the condition and repair of the banks of the said Canal at Summit, at the point of the break caused by March floods; and the communication was read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the communication be ordered printed, and authority granted the Chief Engineer to restore the Canal banks at Summit to their original condition.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the communication ordered printed and placed on file, and authority granted the Chief Engineer to restore the Canal banks at Summit to their original condition.

The following is

THE COMMUNICATION:

"LOCKPORT, Ill., May 25, 1894.

*Hon. Frank Wenter, President Sanitary District, Chicago Ills.:*

DEAR SIR—The banks of the Illinois & Michigan Canal at point west of Summit, where break occurred in March last, are in bad condition and should be repaired in such manner as to restore same back to original condition.

As the Canal Commissioners have often spoken to me about this matter, I would esteem it as a favor if you would give it prompt attention.

Yours truly,

(Signed)

JOHN RYAN,

*General Superintendent."*

CONDITION OF WILLOW SPRINGS BRIDGE  
OVER DESPLAINES RIVER.

The Clerk presented a communication from John A. Shanahan, Village Clerk of Spring Forest, Illinois, calling attention to the condition of the Willow Springs bridge over the Desplaines River, claimed to have been brought about by the hauling of heavy machinery by the contractors, and asking a conference with reference to the same; and the communication was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

THE COMMUNICATION:

"WILLOW SPRINGS, Ill., May 25, 1894.

*The Honorable Board of Trustees, Sanitary District of Chicago:*

GENTLEMEN—I am instructed by the

Board of Trustees of the Village of Spring Forest to notify your Honorable Body of the dangerous condition of the Desplaines River bridge, caused by the hauling of heavy machinery to be used by your contractors or agents, and to ask that a day be appointed for a conference between said Board of Trustees and representatives of said Sanitary District.

Yours very truly,

(Signed)

JNO. A. SHANAHAN,

*Village Clerk."*

NOTICE OF INJUNCTION BY E. V. JOHNSON  
ET AL. ON CONTRACT FOR SECTION 1.

The President announced that he had been served with notice of a preliminary injunction, temporarily restraining the Board of Trustees of the District from rejecting the proposal submitted by the "Johnson & Bradley Company" for Section 1, and from executing and delivering the contract for said Section 1 to "Griffiths & McDermott, or any person or persons than the lowest responsible bidder or bidders."

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Eckhart, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

REGULAR MEETING.

The two hundred and twenty-fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, May 30, 1894, at 1:30 o'clock P. M.

On roll-call there was no members of the Board present.

At 2 o'clock P. M., there being still no quorum, in pursuance of the rules, the Board stood adjourned.

THOS. F. JUDGE,

*Clerk.*







PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES,

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JUNE 6, 1894.

OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and twenty-fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, June 6, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7), and subsequently Mr. Gilmore, making a total of eight (8) members, were present.

MINUTES.

The minutes of the regular meeting held May 23, 1894, of the adjourned session of the same regular meeting held

May 29, 1894 and of the regular meeting held May 30, 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Boldenweck.

VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (May, 1894).....	\$ 500 00
Eng. Dept., Div. No. 1, (May, 1894).....	7,691 80
Eng. Dept., Div. No. 1, Tow-path, (May, 1894).....	424 75
Eng. Dept., Div. No. 2, (May, 1894).....	2,016 56
Eng. Dept., Div. No. 3, (May, 1894).....	1,918 33
Eng. Dept., Div. No. 4, (May, 1894).....	340 00
	— \$12,891 44
Clerical Dept., Clerk's roll, (May, 1894).....	\$ 891 66

Law Dept., Attorney's roll, (May, 1894).....	\$ 1,286 67
Law Dept., Joliet roll, (May, 1894).....	458 33
	<hr/> \$ 1,745 00
Treasury Dept., Treasurer's roll, (May, 1894).....	\$166 67
General Account, Sanitary Inspector's roll, (May, 1894).....	\$ 200 00
General Account, Trustees' roll, (May, 1894).....	2,333 33
	<hr/> \$ 2,533 33
Police Dept., Field roll, (May, 1894).....	\$ 3,796 65
Total.....	<hr/> \$22,024 75

## ENGINEERING DEPARTMENT.

*Construction Account—*

McArthur Bros. (Sec. 2, June 1, 1894).....	\$ 1,575 00
Gilman & Co. (Sec. 3 June 1, 1894).....	2,072 70
McArthur Bros. (Sec. 4, June 1, 1894).....	1,180 77
The Qualey Construction Co., (Sec. 5, June 1, 1894).....	4,669 00
Mason, Hoge & Co., (Sec. 6, June 1, 1894)	9,355 50
Mason, Hoge & Co., (Sec. 7, June 1, 1894)	6,508 25
Mason, Hoge, King & Co. (Sec. 8, June 1, 1894).....	30,610 12
Halvorson, Richards & Co. (Sec. 9, June 1, 1894).....	18,571 35
E. D. Smith & Co. (Sec. 10, June 1, 1894).....	22,960 00
Mason, Hoge & Co. (Sec. 11, June 1, 1894)	10,332 22
Mason, Hoge & Co., (Sec. 12, June 1, 1894)	7,350 44
Mason, Hoge & Co., (Sec. 13, June 1, 1894)	15,762 91
Smith & Eastman (Sec. 14, June 1, 1894).....	6,047 13
Heldmaier & Neu (Sec. A, June 1, 1894).....	1,641 31
Heldmaier & Neu (Sec. B, June 1, 1894).....	10,408 94
Western Dredging & Improvement Co. (Sec. C, June 1, 1894)	6,716 94
E. D. Smith & Co. (Sec. D, June 1, 1894).....	17,138 87
Ricker, Lee & Co. (Sec. F, June 1, 1894).....	8,667 66
Gahan & Byrne (Sec. G, June 1, 1894).....	6,662 28
Christie & Lowe (Sec. I, June 1, 1894).....	7,507 50
Christie & Lowe (Sec. K, June 1, 1894).....	2,264 06
The Heidenreich Co. (Sec. L, June 1, 1894)	4,871 32
The Heidenreich Co. (Sec. M, June 1, 1894)	2,477 87

McMahon & Montgomery Co. et al. (Sec. O, June 1, 1894).....	\$ 5,512 50
Isham Randolph (Sec. 1, strengthening levee, final, May 29, 1894)...	370 55
The Qualey Construction Co. (Sec. 5, spoil removed from existing banks, June 1, 1894).....	81 00
Heldmaier & Neu (Sec. A, completing levee, Stations 692 to 710, June 1, 1894).....	2,980 80
	<hr/> \$214,296 99

## ENGINEERING DEPARTMENT.

J. R. Davis & Son (foundation borings east of Summit) ....	\$ 220 86
P. F. Pettibone & Co. (stationery).....	82 50
Western Bank Note & Engraving Co. (engraved letter heads, etc.).....	147 50
Rand, McNally & Co. (maps).....	40 50
Eugene Dietzgen Co. (drafting material)...	55 40
F. Mayer & Co. (blue prints).....	52 58
Crerar, Adams & Co. (wire rope).....	11 11
Morrisson, Plummer & Co. (packing boxes)...	2 65
J. H. Spengler (sundries).....	15 48
John McCaffery (rent, Brighton Park, May, 1894).....	25 00
John T. Allison (rent, Summit, May, 1894)...	20 00
J. M. Abbott (rent, Willow Springs, May, 1894).....	20 00
H. S. Norton (rent, Lemont, May, 1894)	18 00
O. W. Moon (rent, Lockport, May, 1894)	20 00
Chicago Towel Supply Co. (towel).....	5 40
Trevor Spring Water Co. (ice).....	9 00
John Doogan (expressage).....	10 00
Chicago Wholesale Picture Co. (frame)....	4 00
Isham Randolph (traveling).....	78 52
D. C. Dunlap (traveling).....	43 40
Thos. T. Johnston (traveling).....	29 63
Hiram A. Miller (traveling).....	13 82
Chas. L. Harrison (traveling).....	7 90
W. T. Keating (traveling).....	23 08
J. H. Spengler (traveling).....	18 00



Ebin J. Ward (traveling).....	\$ 4 55	
A. C. Schrader (emergency).....	20 25	
		\$ 999 13

## CLERICAL DEPARTMENT.

Warner's Towel Supply (towelings).....	\$ 1 50	
Trevor Spring Water Co. (ice).....	3 00	
		\$ 4 50

## LAW DEPARTMENT.

Jos. Donnersberger (expert right of way services, May, 1894). \$	300 00	
Trevor Spring Water Co. (ice).....	3 00	
Warner's Towel Supply Co. (towelings)...	1 50	
Orrin N. Carter (expense) .....	30 38	
		\$ 334 88

## GENERAL ACCOUNT.

Sharp & Smith (vac-cine points).....	\$ 22 50	
C. F. W. Junge (post-age stamps).....	20 00	
		\$ 42 50

## POLICE DEPARTMENT.

Ryan & Hart (printing).....	\$ 13 50	
Martin Emerich Outfitting Co. (station furniture).....	154 54	
Marshall Field & Co. (blankets and towels)	30 36	
John Larney (coal)...	6 75	
		\$ 205 15
Grand total.....		\$237,907 90

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 479, Law Department, (post-age stamps).....	\$10.00
No. 480, Law Department, (stationery).....	17.50

No. 925, Police Department, (horses and wagon).....	\$ 455.00
No. 1058, Clerical Department, (stationery).....	19.60
Total.....	\$502.10

Mr. Kelly, seconded by Mr. Eckhart, moved that Requisitions Nos. 479 and 480, for the Law Department; No. 925, for the Police Department, and No. 1058, for the Clerical Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried and Requisitions Nos. 479 and 480, for the Law Department; No. 925, for the Police Department, and No. 1058, for the Clerical Department, as read and shown above, be allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the weeks ending May 26 and June 2, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, June 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the weeks ending May 26 and June 2, 1894, as the same have been reported to me:

*Week Ending May 26, 1894.*

Engineering Department.....	114
Clerical Department.....	4
Law Department....	8
Treasury Department.....	1
Police Department.....	47

Total employes..... 174

*Week Ending June 2, 1894.*

*Engineering Department.....	140
Clerical Department.....	4
Law Department.....	8

Treasury Department.....	1
Police Department.....	47
Total employes.....	<u>200</u>

\*Increase due to towpath repair party.

Respectfully submitted,

THOS. F. JUDGE,  
Clerk."

#### NEW LOCATION OF MAIN CHANNEL AT LOWER END.

The Clerk presented a report from the Chief Engineer, accompanied by map, showing a new location of the Main Channel at the lower end, terminating at Station 1520 and a tail race terminating at Station 1619; and the report was read.

By unanimous consent, the report was ordered printed, and with accompanying map, placed on file, and the subject matter postponed, to be taken up with the report of the Joint Committee on Engineering and Finance presented later in the meeting.

The following is

#### THE REPORT:

"CHICAGO, June 6, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit map showing the location of the Main Drainage Channel terminating at Station 1520.

The enlargement for windage basin is included between the solid red lines, as shown upon the map.

The cross-sections of the tail race are shown in the extension terminating at or near Station 1619, where the Wier dam, for the purpose of controlling the velocity of the waste waters, is to be built.

Yours truly,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

(Accompanied by map).

#### MONTHLY REPORT FROM TREASURY DE- PARTMENT.

The Clerk presented a report from the Treasury Department for the month of May, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"Balance on hand at date of last report.....	\$2,309,490.67
Received from Thos. F. Judge, Clerk, for Law Department, Land Ac- count, (C., M. & N. R. R. Co., F. M. Wilshire land).....	\$641.64
Received from County Treasurer, tax acct....	50,000.00
Received from National Bank of Illinois, inter- est for May.....	672.65
Received from Ft. Dear- born National Bank, interest for May.....	660.50
Received from Metro- politan National Bank, interest for May. ....	730.56
Received from Ameri- can Trust and Savings Bank, interest for May.....	35.66
Received from Chicago National Bank, inter- est for May.....	662.12
Received from Globe National Bank, inter- est for May.....	836.15
	<u>\$54,239.28</u>

Total cash received for month.....	\$2,363,729.95
Total cash disbursed during month as per annexed schedules, viz:	
Clerical Department....	\$929.92
Treasury Department..	181.16
Engineering Departm't.	14,239.85
Engineering—Construc- tion—Department....	390,553.40
Law Department.....	3,141.91
Law Department—Land Account.....	33,133.92
General Account.....	4,097.75
Police Department.....	3,150.88
	<u>\$449,478.79</u>

Balance this date, in banks as per schedule endorsed hereon ....	<u>\$1,914,251.16</u>
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(Signed) MELVILLE E. STONE,  
Treasurer.  
CHICAGO, June 4, 1894."

#### SCHEDULE:

Fort Dearborn National Bank.....	\$361,122.08
National Bank of Illinois.....	386,962.61
Chicago National Bank.....	360,638.08
Metropolitan National Bank.....	388,859.95
American Trust and Savings Bank.	21,003.79
Globe National Bank.....	395,664.65
Total.. ..	<u>\$1,914,251.16</u>

## MONTHLY REPORT FROM SANITARY INSPECTOR.

The Clerk presented a report from the Sanitary Inspector for the month of May, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

"CHICAGO, June 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Since submitting my last report such progress has been made in our effort at organizing a more efficient hospital service that by the 20th of the present month the new hospital will be so near completion as to be ready for the reception of the patients, the majority of the contractors having expressed their willingness to support the new enterprise, and I look for the rest of them to fall into line when they see the superiority of the new over the old method.

As there was not a single case of small pox reported from any of the camps during the month of May, I have very little apprehension in regard to the future course of this epidemic as a serious factor in delaying work on the Drainage Channel. There has been no deviation from the usual high average of health among the laborers, which is a gratifying fact although one not very well calculated to add variety to these reports.

Most respectfully submitted,

(Signed) WILLIAM MARTIN, M. D.

*Sanitary Inspector."*

## DISSOLUTION OF INJUNCTION BY E. V. JOHNSON ET AL. ON CONTRACT FOR SECTION 1.

The Clerk presented a report from the Attorney, giving notice of the dissolution, by Judge Tuley, of the preliminary injunction, secured by E. V. Johnson et al., temporarily restraining the Board of Trustees of the District from rejecting the bid of "Johnson & Bradley Company" for Section 1, and from "executing and delivering the contract for said Section 1 to Griffiths & McDermott."

The report was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

"CHICAGO, June 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—At the adjourned meeting held May 29, 1894, the President announced that he had been served with a notice of a preliminary injunction granted on the application of Messrs. Johnson, Bradley & Gobel, restraining, for ten days, the Board of Trustees of the District from executing and delivering to Griffiths & McDermott, or any person or persons other than the lowest responsible bidder or bidders, the contract for Section one (1).

A motion was made on the part of the District to dissolve this injunction, and meanwhile a notice was served upon the Attorney by the solicitors of Johnson, Bradley & Gobel, of a motion for a permanent injunction. The two motions were heard and considered together by his Honor, Judge Tuley, on Saturday, June 2, 1894.

The motion to dissolve the temporary injunction was granted, and the motion for a permanent injunction denied on the face of complainant's bill, the Judge holding that where the requirements of the statute had been followed in inviting and opening bids the question as to who was the lowest responsible bidder rested solely in the discretion of the Board of Trustees, that their decision was in its nature judicial and could be attacked only on the ground of fraud; that there were no allegations of fraud in complainant's bill, and that it is a presumption of law that municipal boards will act for the best interests of the corporations they represent, and that there was nothing in the allegations of complainant's bill going to show that the Board of Trustees had not honestly exercised the discretion vested in them in deciding who were the lowest responsible bidders.

It was further held that the observance of the requirements prescribed for bidders was necessary to entitle any bid to receive consideration, and that complainant Gobel, not having attached his name to any bid, could not afterward insist that he was associated with others in the making of any proposal.

Respectfully submitted,

(Signed)

ORRIN N. CARTER,  
*Attorney."*



## CLAIM FOR DAMAGES TO COLUMBIA PARK BUILDINGS.

Mr. Kelly, Chairman, presented a report from the Joint Committee on Judiciary and Finance, with reference to and accompanied by a communication from George W. Plummer, Attorney, representing the Columbia Park Company, making claim for damages said to have been done to buildings of the Park by blasting on the river diversion—presented and referred to that Committee at the meeting held March 7, 1894, (page 1808 of the Proceedings)—recommending the payment for the repair of said damage as set forth in the report; and the report was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed and with enclosure placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Excused and not voting—Mr. Boldenweck—one (1). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and with enclosure, placed on file, and the recommendations made in the report concurred in.

The following is

## THE REPORT:

“CHICAGO, June 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the communication from George W. Plummer, attorney, representing the Columbia Park Company, making claim for damages said to have been done to the buildings of the Park by blasting on the river diversion, presented to the Board and referred to the Joint Committee on Judiciary and Finance at the meeting held March 7, 1894, (page 1808 of the Proceedings), your Committee respectfully report that they have duly considered the claim, and secured a report from the Chief Engineer that the damage done could be repaired for the sum of thirty (\$30) dollars.

In view of the small amount involved and the necessity for prompt action, the Committee directed the Chief Engineer to have the work done at the price estimated, and therefore request that the action of the Chief Engineer with reference to the same be approved.

The communication of the Columbia

Park Company is herewith returned for filing.

Respectfully submitted,

(Signed) THOMAS KELLY,  
*Chairman.*

B. A. ECKHART,  
JOHN J. ALTPETER,  
W. H. RUSSELL,

*Joint Committee on Judiciary and Finance.”*

(One (1) enclosure.)

ORDINANCE FOR THIRD ISSUE OF BONDS—\$3,000,000—AND ORDER FOR ADVERTISING AND PRINTING OF SAME.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, transmitting an ordinance providing for the issue of three million dollars (\$3,000,000) of four (4) per cent bonds, for the corporate purposes of the District, being the third issue, and also transmitting an order authorizing and directing the Clerk, with the Committee on Finance, to have said bonds advertised, engraved and printed; and the report, with accompanying ordinance and order, were read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report, with accompanying ordinance and order, be ordered printed and placed on file, the recommendations made in the report concurred in, and accompanying order adopted.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report with accompanying ordinance and order, ordered printed and placed on file, and the accompanying order adopted.

Mr. Eckhart, seconded by Mr. Kelly, then moved the passage of the ordinance.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result, the President declared the motion carried and the ordinance passed.

The following is

THE REPORT, WITH ACCOMPANYING ORDINANCE AND ORDER:

“CHICAGO, June 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN — Your Committee on

Finance submits herewith an ordinance providing for the issue of three million (\$3,000,000) dollars of four per cent (4%) bonds, for the corporate purposes of the Sanitary District, as provided in the ordinance.

Your Committee also transmits herewith a form of order, authorizing and directing the Clerk, in conjunction with the Committee on Finance, to advertise and make the necessary arrangements for the engraving and printing of said issue of bonds.

Your Committee respectfully recommend the adoption of the accompanying ordinance and the passage of the accompanying order.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

W. H. RUSSELL,

THOMAS KELLY,

*Committee on Finance."*

(Accompanied by ordinance and order.)

The following is

#### THE ORDINANCE:

*"Be it Ordained by the Board of Trustees of the Sanitary District of Chicago:*

SECTION 1. That there be borrowed the sum of three million (\$3,000,000) dollars for the corporate purposes of the Sanitary District of Chicago, and that interest-bearing coupon bonds be issued therefor to the amount of three million (\$3,000,000) dollars by said Sanitary District of Chicago, said bonds to be of the denomination of one thousand (\$1,000) dollars each, all to bear date of the first day of July, 1894, one hundred and fifty thousand (\$150,000) dollars of the principal of said bonds to be payable on the first day of July of the year 1895, and of each of the years thereafter following until and including the year 1914; said bonds to be numbered consecutively from five thousand and one (5,001) to eight thousand (8,000) inclusive, and to bear interest at the rate of four (4) per centum per annum from the date thereof. Interest to be payable on the first day of January and of July in each year and to be evidenced by coupons attached to each bond, to be numbered consecutively, each coupon to bear the number of the bond to which it is attached, and to be for the sum

of twenty (\$20 00) dollars, and the first or number one (1) coupon of each bond to be payable on the first day of January, 1895, and the next or number two (2) coupon on each bond to be payable on the first day of July, 1895, and so on, each succeeding coupon being payable six (6) months after the preceding one, both principal and interest to be payable at the office of the Treasurer of the Sanitary District of Chicago, interest to be payable only upon presentation and surrender of the proper interest coupons. Such bonds shall be signed on behalf of the Sanitary District of Chicago, by the President of the Board of Trustees and countersigned by the Clerk thereof, and attested by the seal of said Sanitary District.

SEC. 2. That said bonds, when they are executed, shall be deposited with the Treasurer of said District for safe keeping, and shall be sold at such price and for such rates as the Board of Trustees of this District shall from time to time determine and direct, and the proceeds arising from the sale of said bonds shall be received by the Treasurer of said District as such; and shall be used for the corporate purposes thereof, as may be directed from time to time by the Board of Trustees.

SEC. 3. That in each of the hereinafter mentioned years there shall be levied and assessed on the taxable property within said District, the sums respectively, as follows:

For the year 1895, two hundred and seventy thousand (\$270,000) dollars.

For the year 1896, two hundred and sixty-four thousand (\$264,000) dollars.

For the year 1897, two hundred and fifty-eight thousand (\$258,000) dollars.

For the year 1898, two hundred and fifty-two thousand (\$252,000) dollars.

For the year 1899, two hundred and forty-six thousand (\$246,000) dollars.

For the year 1900, two hundred and forty thousand (\$240,000) dollars.

For the year 1901, two hundred and thirty-four thousand (\$234,000) dollars.

For the year 1902, two hundred and twenty-eight thousand (\$228,000) dollars.

For the year 1903, two hundred and twenty-two thousand (\$222,000) dollars.

For the year 1904, two hundred and sixteen thousand (\$216,000) dollars.



For the year 1905, two hundred and ten thousand (\$210,000) dollars.

For the year 1906, two hundred and four thousand (\$204,000) dollars.

For the year 1907, one hundred and ninety-eight thousand (\$198,000) dollars.

For the year 1908, one hundred and ninety-two thousand (\$192,000) dollars.

For the year 1909, one hundred and eighty-six thousand (\$186,000) dollars.

For the year 1910, one hundred and eighty thousand (\$180,000) dollars.

For the year 1911, one hundred and seventy-four thousand (\$174,000) dollars.

For the year 1912, one hundred and sixty-eight thousand (\$168,000) dollars.

For the year 1913, one hundred and sixty-two thousand (\$162,000) dollars.

For the year 1914, one hundred and fifty-six thousand (\$156,000) dollars.

For the purpose of paying the principal and interest of the bonds issued under this ordinance, said sums so levied being sufficient to pay the interest on said bonds as it falls due, and also to pay and discharge the principal thereof as the same shall fall due, and the Clerk of this District is hereby directed in the year 1895, and in each of the years thereafter until the year 1914, to include the amount required by this ordinance to be raised by taxes in each of said years respectively, in the amount which shall be certified to the County Clerk in each of said years as the amount required to be raised by taxation in said District.

SEC. 4. Bonds to be issued in pursuance of this ordinance may be registered with the Treasurer of said District, and after such registry, no transfer shall be valid, except upon the books of said Treasurer, but the registry thereafter upon the books of the Treasurer of a transfer to bearer shall restore transferability by delivery.

Said bonds shall continue subject to successive registrations and transfers to bearer as aforesaid, at the option of each holder.

SEC. 5. That the credit and resources of the Sanitary District of Chicago be and the same are hereby irrevocably pledged to the payment of the bonds which shall be issued in pursuance of this ordinance, and the interest thereon as it shall fall due.

SEC. 6. This ordinance shall take effect and be in force from and after its passage."

The following is

#### THE ORDER:

"*Ordered*, That the Clerk of this District be and he is hereby directed to advertise, under the direction of the Committee on Finance, for the purchase of three million (\$3,000,000) dollars of four per cent (4%) bonds of the Sanitary District of Chicago (being the third issue of the bonds of said District), to be issued in accordance with the ordinance passed this sixth day of June, A. D. 1894, and that the Clerk also, under the direction of said Committee, make the necessary arrangements for the engraving and printing of said issue of bonds."

#### COMPLETION OF CONTRACT AND BOND ON RE-LETTING OF SECTION 1.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, transmitting, in duplicate, completed contract and bond with Griffiths & McDermott, under bid of April 18, 1894, on the re-letting of Section 1 of the Main Channel, recommending that the accompanying bond be approved, the bid check returned and the President and Clerk authorized and directed to execute the accompanying contract on behalf of the District, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and, with accompanying contract and bond, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the accompanying contract on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and with accompanying completed contract and bond, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the accompanying contract on behalf of the District, as provided in the report.

This following is

#### THE REPORT:

"CHICAGO, June 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Fi-



nance presents herewith the contract of Griffiths & McDermott, accompanied with bond, for Section one (1), awarded by your Honorable Body May 23, 1894, and recommends that said bond be approved and that the President and Clerk be authorized and directed to execute said contract on the part of the District, and that the Clerk be directed to return the check deposited by said Griffiths & McDermott with their bid.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*  
 W. H. RUSSELL,  
 THOMAS KELLY,  
*Committee on Finance."*

(Accompanied by completed contract and bond in duplicate.)

#### REPORT ON HARLEV CLAIM FOR WORK ON WILLOW SPRINGS ROAD.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, with reference to and accompanied by the report of the Chief Engineer on the claim of Alfred Harlev, for work done on the Willow Springs road in November and December, 1893, presented and referred to that Committee at the meeting held May 29, 1894 (page 1973 of the Proceedings), recommending the payment of said claim under conditions as set forth in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed, and with enclosure, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and with enclosure, placed on file, and the recommendations made in the report concurred in.

The following is

#### THE REPORT:

"CHICAGO, June 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the report of the Chief Engineer, with reference to the

claim of Alfred Harlev, for work done on the Willow Springs road in November and December, 1893, and concerning payments already made against the claim, presented and referred to the Committee on Finance, with directions to report back at the next meeting, at the meeting held May 29, 1894, (page 1973 of the Proceedings,) your Committee reports as follows:

We find that the payments on said claim made by the Chief Engineer are correct, and that the further sum of \$85.24, on account of moneys collected from the men for hospital dues, and heretofore ordered retained by the District, rightfully belongs to Mr. Harlev, and should not be deducted from his account.

Your Committee therefore recommends that the claim of Alfred Harlev, for work done by him on the Willow Springs road, during November and December, 1893, be allowed in the sum of \$778.22, provision being made for the return to the Chief Engineer of \$394.94, being money already advanced by the Chief Engineer for the payment of labor, hospital dues, etc., on said account, leaving a balance actually due said Harlev of \$383.28, it being further understood and agreed that said payment shall be final and in full of all claims of said Alfred Harlev, on the River Diversion and road work on said Section 1.

The report of the Chief Engineer is returned for filing.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*  
 W. H. RUSSELL,  
 THOMAS KELLY,  
*Committee on Finance."*

(One (1) enclosure.)

#### PAYMENT FOR "M'WEENEY AND GEDDES" LANDS.

Mr. Eckhart, Chairman, on behalf of the Joint Committee on Finance and Engineering, presented an order authorizing and directing the Clerk to pay Henry Spangler, County Treasurer of Will County, Illinois, on the voucher of the Attorney, a certain sum as a deposit for right of way lands in Will County, owned by John McWeeney, Martha R. Geddes, et al., as provided in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk authorized and directed to pay Henry Spangler, County Treasurer of Will County, Illinois, a certain sum as a deposit for right of way lands in Will County, owned by John McWeeney, Martha R. Geddes, et al., as provided in the order.

The following is

#### THE ORDER:

“Ordered, That the Clerk of this District be and he is hereby authorized and directed to pay, on the voucher of the Attorney, to Henry Spangler, County Treasurer of Will County, Illinois, the sum of eight thousand eight hundred and nine (\$8,809.00) dollars, said sum to be held on deposit by said County Treasurer for the use and benefit of the owners of or persons interested in certain lands and property hereinafter described, situated in Will County, Illinois, pursuant to certain orders of judgment of the Circuit Court of said Will County, entered on the 29th day of May, A. D. 1894, and the 4th day of June, A. D. 1894, respectively, in certain condemnation proceedings then pending in said court, being case No. 14,677, entitled Sanitary District of Chicago vs. John McWeeney et al., said sum being the aggregate of the amounts awarded by the verdicts and the aforesaid orders of judgment as compensation for the taking of the following described lands, to-wit:

That part of the southwest quarter (S. W.  $\frac{1}{4}$ ) of Section fourteen (14), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, lying west (W.) of the new right of way of the Chicago, Santa Fe and California Railway Company; also, lots one (1), two (2) and three (3) of a subdivision of the east (E.) fraction and the west (W.) part of the west (W.) fraction of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section twenty-two (22), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian; all said above described premises lying and being situate in the County of Will in the State of Illinois.”

#### REPORT ON WESTERN STONE COMPANY TRESTLE ACROSS SECTION 9.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by the report from the Chief Engineer, asking authority to

have E. D. Smith & Co. build a trestle for the Western Stone Company track across the west end of Section 9 at Quarry No. 5, presented and referred to that Committee at the meeting held May 29, 1894 (page 1972 of the Proceedings)—recommending that the Chief Engineer be authorized to have said work done at a cost not to exceed \$1,200, as provided in the report; and the report was read.

Mr. Cooley, seconded by Mr. Russell, moved that the report be adopted, ordered printed and with enclosure placed on file, the recommendations made in the report concurred in, and the Chief Engineer authorized as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and with enclosure placed on file, the recommendations made in the report concurred in, and the Chief Engineer authorized as provided in the report.

The following is

#### THE REPORT:

“CHICAGO, June 6, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the report of the Chief Engineer, recommending the construction of a trestle under the track of the Western Stone Company on the line of Sections 9 and 10, presented and referred to the Joint Committee on Engineering and Finance at the meeting held May 29, 1894, (page 1972 of the Proceedings) your Committee reports as follows:

The Committee recommends that the Chief Engineer be authorized and instructed to carry out the work as proposed at a cost not to exceed twelve hundred (\$1,200) dollars.

The report of the Chief Engineer is returned herewith for filing.

Respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.

B. A. ECKHART,  
W. H. RUSSELL,  
THOMAS KELLY,  
JOHN J. ALTPETER,  
WM. BOLDENWECK,

*Joint Committee on Engineering and Finance.”*

(One (1) enclosure).



## RECESS.

At this point a recess of five minutes was taken to consider the report on the lower end of the Main Channel.

On re-assembling, at the close of the recess, on roll-call, Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8) members were present.

## REPORT ON EXTENSION OF MAIN CHANNEL AND TAIL RACE—LOCKPORT TO JOLIET.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a report from the Chief Engineer, transmitting comparison of estimates for the extension of the Main Channel and the tail race between Lockport and Joliet, presented and referred to that Committee at the meeting held February 28, 1894 (page 1796 of Proceedings); and the report was read.

In connection with the Joint Committee's report, the subject matter of the report of the Chief Engineer, with map, showing the new location of the extension of the Main Channel, presented to the Board earlier in the meeting and ordered printed and placed on file, was also taken up.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the report and subject matter of the report of the Chief Engineer, be adopted, ordered printed and placed on file, and the recommendations made in the report concurred in.

On roll call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Excused and not voting—Mr. Cooley—one (1). Nays—None.

Upon which result, the President declared the motion carried, the report and the subject matter of the report of the Chief Engineer, adopted, ordered printed and placed on file, and the recommendations made in the report concurred in.

The following is

## THE REPORT:

"CHICAGO, June 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Under order of October 4, 1893, (page 1497 of Proceedings) the Chief Engineer reported a comparison of estimates, covering the proposed construction for fourteen thousand feet below the controlling works, under date of February 28, 1894, (page 1796 of the

Proceedings), which was referred to this Committee.

The Chief Engineer found his estimates differing radically from those submitted under date of April 3, 1893, (see Proceedings of April 12, 1893, page 1158) and as they were based on complete borings and an exhaustive topographical survey, which were not available at the time of the former estimates, he asked for further instructions before proceeding to mature final plans for the work.

The Chief Engineer, at the suggestion of the Committee, has made certain modifications in the proposed treatment with a view of reducing the cost to a minimum and has also submitted a comparative estimate along what is known as the central route, and the Attorney has also estimated the land damages involved.

The Committee concludes that the route, as determined on April 12, 1893, should be substantially adhered to from the present terminus of the Main Channel at Station 1480 to a point about three-fourths of a mile below the Wire Mills, at or near Station 1619, with this modification, viz.: that the Main Channel shall be extended to a point between Station 1515 and 1520, and shall be so widened at the lower end as to answer the purpose of a winding basin, the easterly side of the Main Channel being continued in a straight line for this purpose, and that the waste waters be spilled on the westerly side of this basin, all as shown and in conformity to the plan of the Chief Engineer this day submitted to the Board.

This plan permits a future extension of the Main Channel as future conditions may dictate, and disposes of the waste waters to the west of the Wire Mills, as heretofore determined.

We recommend that the Chief Engineer prepare plans and specifications, with a view of advertising the work as soon as practicable.

The report of the Chief Engineer is returned herewith for filing.

Very respectfully submitted,

(Signed) B. A. ECKHART,  
WM. BOLDENWECK,  
THOMAS KELLY,  
W. H. RUSSELL,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure, with table.)



# RULES FOR THE CARRYING OF CONCEALED WEAPONS.

Mr. Altpeter presented an order, directing the Committee on Health and Public Order, together with the Attorney and Marshal, to prepare rules with reference to the carrying of concealed weapons; and the order was read.

Mr. Altpeter, seconded by Mr. Eckhart, moved the adoption of the order.

The motion prevailed unanimously, and it was so ordered.

The following is

## THE ORDER:

“WHEREAS, The custom of carrying concealed weapons is a fruitful source of accident and often leads to breaches of the peace, and to the commission of crimes which would not take place in the absence of such a practice; therefore, be it

*Ordered*, That the matter of drafting such rules and regulations in regard to the carrying of concealed weapons as may be prescribed by this Board under the statute empowering it to appoint and support a police force, be referred to the Committee on Health and Public Order, together with the Attorney and Marshal, with directions to report thereon at an early date.”

## NOTICE TO ALFRED HARLEV TO MOVE BUILDINGS AND MACHINERY FROM SECTION ONE (1).

Mr. Boldenweck presented an order instructing the Clerk to serve Alfred Harlev with notice, as set forth in the order, directing him to remove his buildings and machinery from Section 1; and the order was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Excused and not voting—Mr. Altpeter—one (1). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk instructed in accordance with the same.

The following is

## THE ORDER:

“*Ordered*, That the Clerk be and he is hereby directed to serve upon Alfred Harlev the following notice by delivering to him a copy thereof:

To ALFRED HARLEV—You are hereby notified to remove from Section one (1) of the Main Drainage Channel of the Sanitary District of Chicago, within ten (10) days from date hereof, all machinery thereon owned by you, and within thirty (30) days from date hereof to remove from said section all buildings thereon owned by you, and that on failure on your part to remove such machinery and buildings within the respective times specified said Sanitary District will cause same to be removed at your risk and expense.

Dated, Chicago, June 6th, 1894.”

## ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

JUNE 13, 1894.

#### OFFICIAL RECORD.

(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)

#### REGULAR MEETING.

The two hundred and twenty-sixth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, June 13, 1894, at 1:30 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7) members, were present.

#### MINUTES.

The minutes of the regular meeting held June 6, 1894, were approved as printed, on motion of Mr. Boldenweck, seconded by Mr. Kelly,

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### Construction Account—

Heldmaier & Neu, (Sec. 1, extra work, Willow Springs Road, June 1, 1894).....	\$ 112 00
John Sherwood, (Sec. 1, extra work, Columbia Park repairs, May 25, 1894).....	30 00
Alfred Harlev, (Sec. 1, Willow Springs Road, final, June 6, 1894)...	778 22
Western Dredging & Improvement Co. (Sec. C, building sand excavated, June 1, 1894).....	582 75
	<u>\$1,452 97</u>

#### ENGINEERING DEPARTMENT.

Seelig & Kandler, (chains, etc.).....	\$ 38 00
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Paul Pouliot, (rowboat) \$	23 00
E. Hastings, (gauge reading).....	10 00
Wm. Kirkman, (gauge reading).....	10 00
Geo. Brainard, (gauge reading).....	10 00
Patrick McGinnis, (gauge reading)	10 00
Mary Rusk, (gauge reading).....	10 00
A. C. Schrader, (traveling).....	37 10
	<hr/>
	\$ 146 10

## LAW DEPARTMENT.

Collins, Goodrich, Darrow & Vincent, (legal services).....	\$1,200 00
C. M. Chapin, (stenographer).....	2 25
A. D. Willison, (stenographer).....	8 50
Geo. Hingston, (stenographer).....	5 00
Thos. Burke, (livery)..<	4 00
A. R. Brockway & White, (livery).....	42 00
Orrin N. Carter, (postage stamps).....	10 00
	<hr/>
	\$1,271 75

## LAW DEPARTMENT.

*Land Account—*

Title Guarantee & Trust Co. (opinions of title, Summit to Kedzie avenue and "Canal route.").....	\$6,580 00
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## POLICE DEPARTMENT.

Wm. Croupp, (horse).. \$	100 00
Edward Williams, (expense).....	70 85
	<hr/>
	\$ 170 85

## GENERAL ACCOUNT.

John F. Higgins, (printing proceedings, etc., May, 1894)	\$ 199 27
	<hr/>
Grand total.....	\$9,820 94
	<hr/>

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 505, Engineering Department, (sundries).....	\$30 50
No. 506, Engineering Department, (stakes).....	17 50
	<hr/>
Total .....	\$48 00
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Mr. Boldenweck, seconded by Mr. Eckhart, moved that Requisitions Nos. 505 and 506, for the Engineering Department, as read and shown above be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried and Requisitions Nos. 505 and 506, for the Engineering Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending June 9, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

"CHICAGO, June 13, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employees in each department for the week ending June 9, 1894, as the same have been reported to me:

Engineering Department.....	120
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	46
	<hr/>
Total employees.....	179
	<hr/>

Respectfully submitted,

(Signed)

THOS. F. JUDGE,

*Clerk."*



## MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of May, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, June 13, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to herewith report that the total amount expended on account of and charged to the Clerical Department during the month of May, 1894, was \$26.17, divided as follows:

Salaries.....	\$891 67
Stationery.....	30 00
General expenses.....	4 50
Total.....	<u>\$926 17</u>

There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$950.

The total amount expended and charged to the General Account, during the month of May, 1894, was \$4,010.84, divided as follows:

Salaries.....	\$2 533 33
Printing and Stationery.....	268 50
Janitor Service.....	80 00
History of District.....	937 18
General expenses.....	191 83
Total.....	<u>\$4,010 84</u>

There are no outstanding liabilities against the General Account, and the expenses for the present month will be about \$3,000.

During the month of May, 1894, there were warrants authorized and drawn against the various accounts as follows:

Engineering Department.....	\$ 14,400 81
Clerical Department.....	926 17
Law Department.....	3,165 26
Treasury Department.....	181 16
General Account.....	4,010 84
Engineering Department (Construction Account).....	394,496 17
Law Department (Land Account).....	33,133 92
Police Department.....	3,392 85
Total.....	<u>\$453,707 18</u>

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

## REPORT ON DISTRICT TELEPHONE LINE.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, accompanied by ten (10) enclosures, including agreement and contract, with reference to the establishment of a telephone line connecting the District Stations and the main offices in the Rialto Building, and recommending that the President and Clerk be authorized and directed to execute, on behalf of the District, the accompanying contract with the Chicago Telephone Company for said telephone line, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute, on behalf of the District, the accompanying contract with Chicago Telephone Company for said telephone line, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and with enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute, on behalf of the District, the accompanying contract with the Chicago Telephone Company for said telephone line, as provided in the report.

The following is

## THE REPORT:

“CHICAGO, June 13, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Joint Committee on Finance and Engineering have had under consideration for some time the matter of recommending the establishment of a telephone line connecting the stations of the District with the main offices. The Committee has secured from the various contractors along the line an agreement for the payment of \$100 per annum each for the use of such a system, and we believe that the additional expense will be justified by the convenience and accommodation afforded the District.

The Committee has secured a proposi-

tion from the Chicago Telephone Company, proposing to put in fourteen stations, with fifteen (15) telephones, in Cook and Will Counties, under conditions as set forth in the contracts, for an annual rental of \$2,931.67, to be paid quarterly, in advance, for three years, commencing July 1, 1894, or when said line is completed.

The Committee have carefully considered this matter, and recommend that your Honorable Body approve the project, and that the President and Clerk be authorized and directed to execute the contract transmitted herewith, in duplicate, with the Chicago Telephone Company for said line, and be directed to accept, on behalf of the District, the agreement with the contractors for the payment of \$100 per year each for the use of said line, the said agreement being also transmitted herewith.

All propositions presented to the Committee for the building or leasing of said telephone line are transmitted herewith for filing.

All of which is

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.  
W. H. RUSSELL,  
JOHN J. ALTPETER,  
L. E. COOLEY,  
WM. BOLDENWECK,

*Joint Committee on Finance and Engineering."*

(10 enclosures, including agreement and contract.)

#### REPORT ON MAINTENANCE OF QUARRY NO. 5 TRACK.

Mr. Eckhart, Chairman, presented a report, (with one enclosure), from the Joint Committee on Finance and Engineering, with reference to the maintenance of the Western Stone Company track at Quarry No. 5, and recommending the payment to the said company of the cost of said work under conditions as set forth in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley,

Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.

The following is

#### THE REPORT:

"CHICAGO, June 13, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Joint Committee on Finance and Engineering have had before them at various meetings a bill of the Western Stone Company for \$1,666.50, for work done in keeping in repair the railroad track at Quarry No. 5, from January 8 to March 27, 1894, inclusive. It was originally understood by the Western Stone Company that the District should keep in repair the track at Quarry No. 5 for a certain time, not to extend beyond October 1 of this year, but no such agreement was approved by the Board of Trustees.

Proceeding under what they believed to be the original agreement, the Western Stone Company have kept the track in question in repair up to this time, and your Committee recommend, after careful consideration of the matter, that the bill of \$1,666.50 for this work be paid, with the understanding that the Western Stone Company agree, in consideration of the said payment, that all repairs and work done on and after June 6, 1894, on said track, be done under the direction of the Chief Engineer of the District, and that the said work be kept in repair by the District up to and including October 1 of this year, and no further.

A communication from Mr. B. J. Moore, President of the Western Stone Company, on the subject of the claim, is transmitted herewith for filing.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.  
L. E. COOLEY,  
WM. BOLDENWECK,  
W. H. RUSSELL,  
JOHN J. ALTPETER,

*Joint Committee on Finance and Engineering."*

(One enclosure).



DIVERSION OF DESPLAINES RIVER  
AT LOCKPORT.

The Clerk presented a communication from Mr. S. H. Emery, Jr., Manager, Illinois Division, American Straw Board Company, with reference to a rumored change in the course of the Desplaines River at or near Lockport; and the communication was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

THE COMMUNICATION:

"QUINCY, Ill., June 9, 1894.

*Secretary, Sanitary Drainage District, Rialto Building, Chicago, Illinois:*

DEAR SIR—It is rumored at Lockport that the Drainage Commission are intending to divert the course of the Desplaines River from its present bed to a point west of the Drainage Channel. Our company are leasees by assignment from the Lockport Paper Company of water and land belonging to the state near the hydraulic basin at Lockport, and it would be a very serious damage to us to have the present bed of the river changed at this point. Will you please advise me whether or not any such change is intended, and, if it is, will you give notice to our company (addressed to me at Quincy) of any proceedings with a view to such a change.

Respectfully yours,

(Signed) S. H. EMERY, JR.

*Manager, Illinois Division, American Straw Board Company."*

INVITATION TO VISIT UPPER ILLINOIS  
VALLEY.

The Clerk presented a communication from Jason F. Richardson Jr., City Clerk of Ottawa, Illinois, enclosing copy of resolution adopted by the City Council of that city, inviting the Trustees and officers of the District to visit the Upper Illinois Valley; and the communication and enclosure were read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the communication and enclosure be ordered printed and referred to the Committee on Federal Relations,

with instructions to report back to the Board.

The motion prevailed unanimously, and the communication and enclosure were ordered printed and so referred.

The following is

THE COMMUNICATION, WITH ENCLOSURE:

"OTTAWA, Ill., June 9, 1894.

*Thomas F. Judge, Clerk of the Drainage District, Chicago, Ill.:*

DEAR SIR—Enclosed find copy of the resolutions adopted by the City Council of this city, June 5, 1894. Please acknowledge receipt of the resolutions.

Yours respectfully,

(Signed) JASON F. RICHARDSON, JR.

*City Clerk."*

(Enclosure).

RESOLUTION:

"WHEREAS, On their trip last November, the Trustees and officers of the Sanitary District of Chicago were unable to visit that portion of the valley of the Illinois River lying above Peru; and

WHEREAS, The improvement of this part of the river, in harmony with the general plan of connecting the Mississippi with the great lakes, as outlined by the joint resolution adopted by the Legislature in 1889, will require much engineering skill and the expenditure of far more money than will be needed to dredge the Illinois River below Peru; and

WHEREAS, There are vested in the said Sanitary District certain legal rights and responsibilities, relating as much to the valley above Peru as below that city; therefore, be it

*Resolved*, By the Council of the City of Ottawa, that the Trustees and officers of the said Sanitary District of Chicago, be and they are hereby urged to personally visit and inspect the Desplaines and Illinois Rivers between Joliet Lake and Peru, at their earliest convenience, with a view of becoming better acquainted with this great problem, in the successful completion of which the District and valley are mutually interested and concerned.

*Resolved*, That the City Clerk be and he is hereby instructed to forward a copy of these resolutions to the Clerk of the said Sanitary District of Chicago."



June 13,]

—1993—

[1894.

“Adopted by the City Council of the City of Ottawa, Illinois, at a regular meeting, June 5, 1894.

(Signed) JASON F. RICHARDSON, JR.  
*City Clerk.”*

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*







PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES,

—OF THE—

SANITARY DISTRICT OF CHICAGO.

JUNE 20, 1894.

OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and twenty-seventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, June 20, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8) members, were present.

MINUTES.

The minutes of the regular meeting held June 13, 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Russell.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

<i>Construction Account—</i>	
McArthur Bros. (Sec. 2, June 16, 1894).....	\$ 7,205 63
Gilman & Co. (Sec. 3, June 16, 1894).....	8,505 00
McArthur Bros. (Sec. 4, June 16, 1894).....	9,569 70
The Qualey Construction Co., (Sec. 5, June 16, 1894).....	5,669 13
Mason, Hoge & Co., (Sec. 6, June 16, 1894)	8,292 37
Mason, Hoge & Co., (Sec. 7, June 16, 1894)	6,834 62
Mason, Hoge, King & Co. (Sec. 8, June 16, 1894) .....	18,822 78
Halvorson, Richards & Co. (Sec. 9, June 16, 1894).....	11,039 96
E. D. Smith & Co. (Sec. 10, June 16, 1894).....	18,620 00

Mason, Hoge & Co. (Sec. 11, June 16, 1894)	\$14,007 44
Mason, Hoge & Co., (Sec. 12, June 16, 1894)	6,934 37
Mason, Hoge & Co., (Sec. 13, June 16, 1894)	17,398 06
Smith & Eastman (Sec. 14, June 16, 1894)....	10,843 87
Heldmaier & Neu (Sec. A, June 16, 1894).....	7,717 50
Heldmaier & Neu (Sec. B, June 16, 1894)....	5,081 73
Western Dredging & Improvement Co. (Sec. C, June 16, 1894)	4,113 32
E. D. Smith & Co. (Sec. D, June 16, 1894)....	8,790 70
Ricker, Lee & Co. (Sec. F, June 16, 1894).....	3,136 09
Gahan & Byrne (Sec. G, June 16, 1894)....	3,307 74
Christie & Lowe (Sec. I, June 16, 1894).....	10,283 44
Christie & Lowe (Sec. K, June 16, 1894)....	3,346 87
The Heidenreich Co. (Sec. L, June 16, 1894)	5,476 35
The Heidenreich Co. (Sec. M, June 16, 1894)	3,093 06
McMahon & Mont- gomery Co. et al. (Sec. O, June 16, 1894)	7,537 42
The Qualey Construc- tion Co. (Sec. 5, extra work, spoil removed from existing banks, June 16, 1894).....	729 00
Western Stone Co. (Sec. 10, extra work, main- tenance of Quarry No. 5 track, June 19, 1894).....	1,666 50
Heldmaier & Neu (Sec. A, completing levee, Stations 692 to 710, June 16, 1894).....	4,536 00
	<u>\$212,558 65</u>

## LAW DEPARTMENT.

<i>The Joliet Times</i> , (ad- vertising).....\$	10 00
James M. Purcell, (stenographer).....	44 00
Smith & Eastman, (test pit, Sec. 15).....	86 00
Geo. W. Adelmann, (livery).....	3 00
Orrin N. Carter, (ex- pense, expert wit- nesses).....	393 28
Orrin N. Carter, (ex- pense, witness fees)	337 70
Haley & O'Donnell, (expense).....	27 50
J. L. O'Donnell, (ex- pense, including Wal- bridge Land).....	29 75
	<u>\$ 931 23</u>

## GENERAL ACCOUNT.

Chicago Edison Co. (electric lighting)....	\$ 16 57
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## POLICE DEPARTMENT.

Van Nest & Co., (pas- senger wagon).....\$	200 00
Thos. Ludwig, (black- smithing).....	28 65
	<u>\$ 228 65</u>
Grand total.....	<u>\$213,735 10</u>

Mr. Kelly, seconded by Mr. Russell, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 507, Engineering Department, (sundry supplies).....	\$203 30
No. 508, Engineering Department, (sundry supplies).....	336 75
No. 926, Police Department, (kero- sene).....	30 00
Total .....	<u>\$570 05</u>

Mr. Eckhart, seconded by Mr. Kelly, moved that Requisitions Nos. 507 and 508, for the Engineering Department, as read and shown above be referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and Requisitions Nos. 507 and 508, for the Engineering Department, as read and shown above, were so referred.

Mr. Eckhart, seconded by Mr. Russell, moved that Requisition No. 926, for the Police Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 926, for the Police Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the

number of persons in the employ of the District for the week ending June 16, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, June 20, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending June 16, 1894, as the same have been reported to me:

Engineering Department.....	(No report)
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	47

Total employes..... 60

Up to this writing no report has been received from the Engineering Department as to the force employed therein.

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
*Clerk."*

MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of May, 1894.

The same was read, and, by unanimous consent, was ordered printed and, with accompanying classified statement, placed on file.

The following is

THE REPORT:

"CHICAGO, June 20, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the reports of Divisions 2 and 3, showing the detailed operations of the Engineering Department for the month of May; also a classified statement of expenses in the usual form.

Expenses for the month of May were as follows:

Pay rolls.....	\$ 12,891.44
Material, etc.....	1,843.78
Contractor's estimates.....	383,779.43

Total for May.....\$398,514.65

I estimate the expenses for June will be \$400,000.00, including contractors' estimates.

Yours truly,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*  
(Accompanied by classified statement.)

"CHICAGO, June 4, 1894.

*Mr. Isham Randolph, Chief Engineer:*

DEAR SIR:—The work of Division 2 for the month of May was as follows:

The cross-section work along the line of the River Diversion Channel was completed, bringing this survey up to the Atchison, Topeka & Santa Fe bridge across the Desplaines river, near Summit.

Two land surveys were made near Lockport. Further discharge measurements were taken at Willow Springs and at the section just north of the Spillway. Slope measurements were also taken at the same places. At the Spillway section, 11 sets of discharge measurements and 11 sets of slope measurements were taken. At Willow Springs 8 sets of each were observed. The reduction of this work is in progress.

A second profile of the Atchison, Topeka & Santa Fe tracks was made, covering that portion of the track which has been raised at the Desplaines river crossing near Summit.

A portion of the party was detailed to witness and identify stakes marking the right of way boundary lines on the Brighton Division.

Estimates were made to determine the amount of earth-work required to raise the left bank of the Illinois and Michigan canal, from Lock No. 4 to Hyde's flour mill at Joliet.

The survey party is now at work on the Joliet survey, taking in the river basin and a narrow strip adjacent both east and west.

The borings being made east of Summit were continued.

The digging of test pits on Sections E and F was commenced.

The work of taking record photographs was undertaken.



The relief map of the Desplaines Valley, between the end of Section 14 and Joliet, was completed.

The maintenance and record of water gauges was continued.

The expenses for June will be about the same as for the last month.

Respectfully,

(Signed) THOS. T. JOHNSTON,  
*First Assistant Chief Engineer."*

—  
"CHICAGO, June 12, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of May, 1894:

Prepared two plans for right of way between Lockport and Joliet, one map showing the east line of Tracts 55-61 and 62 in Section 27, Township 36 North, Range 10 East; one tracing of a part of the west half of Section 4, Township 38 North, Range 13 East, and one tracing of the East  $\frac{1}{2}$  of the Northwest  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 36, Township 39 North, Range 13 East.

Finished for use on construction, three maps showing the entrance basin of the Main Channel near Robey street; one map of the right of way and one copy of right of way notes between Bridgeport and Summit.

A tracing of the map showing the contours on the east bank of the Illinois and Michigan canal at Joliet; one mounted map showing the topography in colors between Chicago and Joliet; one map showing a railroad embankment between Corwith and Joliet, cross-sections at Summit, Willow Springs and Sag, and a copy of the official contour map of Riverside, were made.

The acreages of all pieces on the proposed right of way tracts between Lockport and Joliet were calculated.

Work was continued on the plat of soundings through the soft material in Sections A and B; a general right of way map for the County Clerk's office. the plat books, the Sanitary District map, the progress profiles, and the regular routine work of the Division.

Commenced work on a progress chart of all sections of the Main Channel, and a large scale map showing the level, sounding and cross-section notes of surveys between Robey street and Western avenue.

The expense for June will be the same as for the past month.

Yours respectfully,

(Signed) EDGAR WILLIAMS,  
*Second Assistant Chief Engineer."*

# REPORT ON CONDITION OF WORK ON MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer, transmitting a report from the Superintendent of Construction for the month of May, 1894, with reference to the condition of work on the various sections of the Main Channel.

The report and enclosure were read, and, by unanimous consent, were ordered printed and placed on file.

The following is

THE REPORT, WITH ENCLOSURE;

"CHICAGO, June 20, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith the report of the Superintendent of Construction, showing the rates of progress made upon the several sections, the mechanical equipment and the forces employed during the month of May last past. It is gratifying to note that the following sections are now making progress in advance of what is required upon them, respectively, Sections L, I, F, D, B, 4, 8, 9, 10, 11 and 13. While on M, C, 2 and 12 the delinquency is immaterial. I shall use my best endeavors to urge forward the work on the backward sections.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(One (1) enclosure.)

(Enclosure.)

"CHICAGO, June 11, 1894.

*Isham Randolph, Esq., Chief Engineer*

DEAR SIR:—I herewith submit the following resume of the work done during the month of May, accompanied by tabulated statements showing the progress made during the month, the average monthly force account, and the condition of the work up to the 1st inst.

Since my last month's report, two more Sections (N and O) have been let. These sections may be termed the beginning of the end, connecting as they do the former lettings with the Chicago

River at Robey street, which places the entire Main Channel under active construction, excepting about 4,000 feet at the lower end.

The contracts for Sections N and O were executed May 2d, 1894, and work on the latter was commenced on the 4th, dismantling the dock at the slip just west of Robey street. On May 8th, one pile driver arrived, and on the 11th was joined by another, by the use of which all piling and docking were removed during the month.

On the 15th, work was commenced with wheel scrapers which were shortly thereafter supplemented with dump cars for removing the top material which is being used for filling up holes and low places, and in leveling up the right of way adjacent to the Main Channel to a uniform elevation of about seven feet above datum, making proper allowance for surface drainage. The material in excess of this requirement is being taken away on barges by the contractors, and disposed of elsewhere. At present they are towing it out and depositing it in the lake. It is excavated by means of steam dipper dredges, one of which commenced work on the 14th, another on the 15th and the third on the 24th. These dredges are attended by thirteen (13) barges and four (4) tug boats to take away the spoil. Up to the 26th about 8,000 cubic yards were removed by wheel scrapers and dump cars, and 22,-800 cubic yards were excavated with steam dredges, making a total of 30,-800 cubic yards, or 48 per cent of the requirement for the first month.

Section N is a wet, or dredge section, and belongs to the same contractors. It will be inaccessible, however, for dredging operations for some time owing to the method employed.

Their present plant on Section O consists of

Pile drivers.....	2
Steam dipper dredges.....	3
Barges (or dump scows).....	13
Tug boats.....	4
Dump cars.....	24
Wheel scrapers.....	31
Plows.....	4
Average number of men employed..	41
Average number of teams employed.	18

On Section N work has been continued along the north side of the channel with one (1) steam shovel in connection with an incline conveyor. This plant has worked 12 hours per day, and its average capacity per day of 10 hours is about

625 cubic yards. Small dump cars were worked about five days and wheel scrapers six days during the month. Another incline conveyor and steam shovel have been provided and are nearly ready for operation. The output was nearly 20,000 cubic yards or 69 per cent of the requirement. Their plant comprises

Steam shovels and incline conveyors.	2
Steam hoist.....	1
Dump cars.....	24
Wheel scrapers.....	15
Average number of men employed..	46
Average number of teams employed.	5

Section L under same contractors as the preceding one is operated in a similar manner. One steam shovel in connection with an incline conveyor, has been in use all the month working 12 hours per day and averaging about 750 cubic yards per day of 10 hours, or 32,900 cubic yards. In addition to this, about 15,000 cubic yards were handled with wheel scrapers, dump cars, New Era Grader and wagons, making a total of 47,900 cubic yards, which equals 109 per cent of the contract rating. The plant employed is

Steam shovel, with incline conveyor.	1
Wheel scrapers.....	34
Dump cars.....	12
New Era grader.....	1
Wagons.....	8
Average number of men employed..	66
Average number of teams employed.	38

The levee on these two sections is practically completed.

The rate of monthly progress on Section K was increased from 8 per cent to 38 per cent. Seventeen thousand five hundred cubic yards were handled, principally with New Era graders and wagons. Most of their work, however, was done on Section I, which belongs to the same contractors, and taken together, as in the two preceding sections, the average output very nearly equals to the required rate.

The machinery employed on Section K is:

New Era graders.....	3
Wagons.....	26
Wheel scrapers.....	9
Plows.....	2
Average number of men employed..	23
Average number of teams employed..	26

On Section I, one steam shovel, in connection with the truss bridge conveyor, has been in operation all the month, working double shifts of ten hours each per day, and averaging about 515 cubic yards per shift, or 1,030 per day. This



shovel is working a face of about 24 feet in depth, across the full width of the channel. On the 17th, their  $1\frac{1}{2}$  yard dipper was replaced by one of  $2\frac{1}{2}$  cubic yards capacity. During the month, this plant moved about 28,000 cubic yards; and 37,000 cubic yards were handled with wheel scrapers and New Era grader and wagons, making a total for the month of 65,000 cubic yards, which equals 143 per cent of the contract rate. The plant on this section embraces:

Steam shovel and truss bridge conveyor.....	1
Electric light plant.....	1
Wheel scrapers.....	84
New Era grader.....	1
Automatic dump wagons.....	8
Average number men employed.....	99
Average number teams employed.....	68

On Section H, nothing was done during the month, the same contractors having this in connection with Section G, and are confining their operations to the installation of the work on the latter section. They are increasing their team force, and have a new belt conveyor nearly ready for operation. The conveying apparatus is somewhat similar to the carrier on the New Era grader. It is intended to be loaded with a steam shovel through a distributing device. Its utility will probably be thoroughly tested during the current month. A water supply pipe was laid on this section during the month, and the levee practically completed. The plant on this section at the end of the month was:

Steam shovels.....	2
Dump cars.....	42
Belt conveyor.....	1
Average number of men employed....	62
Average number of teams employed....	43

On Section F, the contractors confined their operations to that part of the material which can be removed without blasting, with an encouraging result. They are credited with 51,716 cubic yards, which brings their monthly average up to 126 per cent. Their machinery comprises:

Steam shovels.....	3
Locomotives.....	4
Large, air dump cars.....	30
Average number of men employed....	96
Average number of teams employed....	1

On Section E (as well as F), quicksand has greatly interfered with the test pits that are being made. It is expected, however, that the investigation will be completed within a few days. No work was done during the month by the contractors.

Section D made another excellent showing of 118,093 cubic yards, which is nearly double (198 per cent) the contract rate. During the past two months, they have employed a large force of teams, but now that their team work is well along, their present rate of progress can hardly be maintained. At the end of the month, their plant comprised:

Steam shovels.....	3
Locomotives.....	4
Dump cars.....	40
New Era graders.....	3
Average number of men employed....	118
Average number of teams employed....	93

Section C is credited with 50,666 cubic yards of material, which is 88 per cent of the rate required. This deficiency is accounted for by delays occasioned by breaking their shovels, etc. The hydraulic dredge was completed about the 30th, and is expected to be at work during the current month. Their plant embraces:

Steam shovels.....	2
Locomotives.....	4
Large dump cars.....	16
Hydraulic dredge.....	1
Average number of men employed....	113
Average number of teams employed....	10

Work on Sections A and B was continued with two hydraulic dredges and one dipper dredge. Much trouble was had in maintaining the levees around their settling basins, which required a large force of men, and even then occasional breaks, caused by crawfish or muskrats, would necessitate a suspension. Notwithstanding these delays, the material moved on the two sections during the month aggregates more than 175,000 cubic yards, which is largely in excess of the rate required. Most of the work was done on B, which amounts to 318 per cent, and on A 14 per cent. The plant engaged is as above enumerated.

Average number of men employed...287

No work was done on Section 1, but a resumption is expected during the current month.

Sections 2 and 4, under same contractors, show a slight falling off over the preceding month, owing to the installation of new machinery. Their progress percentage is 84 per cent for Section 2, and 110 per cent for Section 4.

Their plant is as follows:

#### Section 2.

Steam shovels.....	2
Steam hoists.....	2
Dump cars.....	99



Large steam pump stations.....	1
Average number of men employed..	263
Average number of teams employed..	24

## Section 4.

Steam shovels.....	3
Hoisting engines.....	2
Dump cars.....	310
Large steam pump stations.....	2
Average number of men employed..	268
Average number of teams employed..	27

On Section 3 the contractors are still delayed on account of the slow work of getting machinery in place. One cable way is now completed and three others are under way. A first-class compressed air plant is about finished and three channelers are on the ground, so that during the current month they should be able to make a better showing. Only 17,800 cubic yards (85 per cent.) of material was excavated by means of shovels, dump cars and wheelbarrows. The plant comprises:

Air compressors.....	1
Channelers ..	3
Inclines and steam hoists.....	3
Dump cars.....	53
Steam shovels.....	1
Steam pumps.....	3
Average number of men employed..	319
Average number of teams employed..	13

On Section 5 the work of clearing up and sloping the slide has been prosecuted, and preparations made to commence on the rock and retaining walls. Two steam shovels have averaged about 20 days' work each, the output being 29,700 cubic yards, or 56 per cent. of the rate required. One incline is in operation at the east end of the section, and arrangements are being made for two others at the westerly end.

The present plant consists of:

Steam shovels.....	3
Locomotives .....	5
Dump cars .....	125
Channelers.....	1
Derricks.....	2
Pumps.....	8
Average number of men employed..	168
Average number of teams employed..	4

Section 6 is showing a decided improvement in the way of getting the work in proper shape and providing a suitable plant, but as stated in my last report, some time will be required to get the section in good working order and up to full requirements under the new rating (26,619) which is nearly double the former one (16,794). The estimate for May is nearly double that of the preceding month, yet owing to the in-

creased rating, the nominal percentage has only increased from 61 per cent to 63 per cent, but if based on the same rating as the preceding, the percentage would be over 113 per cent. The present plant includes

Hydraulic dredge.....	1
Hoists .....	3
Cars.....	38
Steam pumps.....	4
Average number of men employed..	92
Average number of teams employed..	3

On Section 7 the same condition obtains as on the preceding one. Under the new contract the monthly rating is changed from \$17,405 to \$25,462. The contractors have largely increased their plant during the month and now have

Derricks.....	2
Hoists .....	4
Cars.....	70
Channelers.....	4
Steam drills.....	11
Steam pumps.....	7
Average number of men employed..	244
Average number of teams employed ..	7

They have commenced the erection of an air compressor, and may soon be expected to be doing their full rate.

Sections 8, 9, 10, 11, 12 and 13 need no further mention than the following respective percentages, viz: 184, 118, 212, 112, 75 and 167.

Average number of men employed on these six sections.....	1,736
Average number of teams employed on these six sections....	61

Section 14, though still in arrears, is being provided with an excellent plant and should soon show satisfactory results. The output of glacial drift and rock for the month was 37,800 cubic yards, or 61 per cent.

Average number of men employed..	164
Average number of teams employed ..	10

The average number of men employed during the month on the entire work was 4,207, an increase of 429 over the preceding month, and the number of teams 452, an increase of 124 over the same period.

Considering the reorganization required on the transferred sections, the delays in obtaining the fulfillment of orders for machinery, the scarcity of fuel, etc., the result of the month's work, with a few exceptions, may be regarded as satisfactory.

Respectfully submitted,

(Signed)

U. W. WESTON,

Supt. of Construction."

TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVER

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION.	
		<i>Glacial Drift</i>	<i>Solid Rock.</i>	<i>Glacial Drift</i>	<i>Solid Rock.</i>
		Cubic Yards.	Cubic Yards.	Cubic Yards.	Cubic Yards.
O	McMahon & Montgomery Co. et al.	30,800			
N	Hayes Bros. et al.				
M	The Heidenreich Co.	26,300			
L	The Heidenreich Co.	71,100			
K	Christie & Lowe	21,200			
I	Christie & Lowe	93,600			
H	Gahan & Byrne				
G	Gahan & Byrne	90,005			
F	Ricker, Lee & Co.	368,375		158,234	
E	Streeter & Kenefick	493,163		95,718	
D	E. D. Smith & Co.	612,699			
C	Western Dredging & Imp. Co.	305,099		162,537	
B	Heldmaier & Neu	212,674		204,626	
A	Heldmaier & Neu	350,554		117,786	
1	Griffiths & McDermott	119,526		5,876	
2	McArthur Bros.	290,275		29,516	
3	Gilman & Co.	220,610			
4	McArthur Bros.	303,300			
5	The Qualey Construction Company	283,300			
6	Mason, Hoge & Co.	277,200		112,700	
7	Mason, Hoge & Co.	96,800	133,900	96,700	41,000
8	Mason, Hoge, King & Co.	31,300	202,200	52,900	96,200
9	Halvorson, Richards & Co.	53,200	190,200	37,700	16,000
10	E. D. Smith & Co.	26,400	459,300	27,400	56,500
11	Mason, Hoge & Co.	43,492	401,800	5,756	11,483
12	Mason, Hoge & Co.	27,400	395,500		
13	Mason, Hoge & Co.	32,822	568,400		
14	Smith & Eastman	98,000	154,000		
Totals.....		4,560,194	2,505,300	1,107,449	221,183

Main Channel, glacial drift.....

Main Channel, solid rock.....

River Diversion, glacial drift.....

River Diversion, solid rock.....

Total amount required to be done June 1st, 1894.....

Total amount done June 1st, 1894.....

Total amount short as per contracts.....

Total value of work done June 1st, 1894.....

Reserved.....	{ 12½ per cent.....
	{ 10 per cent.....

Total value of vouchers paid including those of June 1st, 1894.....

NOTE—A revision of the preliminary estimate, covering all changes of contracts and

## SION) AND CONDITION OF WORK ON CONTRACTS JUNE 1ST, 1894.

Total value of work done to June 1st, 1894, on each section.	Total value of work required to be done to June 1st, 1894.	Amounts behind as per contracts.	Amounts ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary June 1st, 1894, to time of completion.	Progress made during month of May, 1894.
\$ 6,468 00	\$ 13,273 30	\$ 6,905 30		\$13,373 30	\$13 673 53	\$ 6,468 00
.....	10,614 81	10 614 81		10 614 81	11,078 32	.....
5,707 10	12,510 04	6,802 94		6,255 02	6,550 80	4,340 00
14,006 70	17,296 72	3 290 02		8,648 36	8,791 40	9 436 30
5 300 00	22,981 10	17,681 10		11,490 55	12,259 29	4,375 00
23,400 00	22,723 88		\$ 676 12	11,361 94	11,332 54	16,250 00
.....	23,933 66	23,933 66		11,966 83	13,007 42	.....
25,201 40	31,582 76	6,381 36		15,791 38	16,063 83	10,644 20
125,069 64	125,472 56	402 92		10,909 78	10,928 09	12,282 55
155,342 28	179,061 39	23,719 11		16,940 19	18,018 34	.....
161,982 30	170,661 21	8,678 91		15,788 43	16 182 92	31,220 84
109,894 46	163,027 81	53,133 35		14,820 71	17,235 86	11,906 51
112,671 00	166,981 54	54,310 54		15,180 14	17,648 80	42,809 58
143,429 13	279 470 18	136,041 05		25,406 38	31,590 06	3,350 68
34 290 86	34,290 86			23,941 17	53,735 43	2,385 69
146 873 48	299,888 00	153,014 52		18,743 00	24,863 58	15,650 00
102,281 70	188,521 02	86,239 32		23,121 22	33,566 96	9,968 00
137,926 54	333,602 90	195,676 36		19,623 70	27,776 89	21,589 40
77,851 00	269,233 64	191,382 64		16,317 19	24,128 73	9,207 00
104 068 00	110,263 51	6,195 51		26,661 51	26,930 88	16,794 00
178,861 50	192,510 34	13,648 84		25,550 84	26,144 27	11,902 00
244 946 00	422,532 54	177,586 54		23,474 03	31,195 19	39,084 50
183,501 80	357,008 22	173,506 42		19,833 79	27,377 55	22,685 50
426,090 00	426,937 94	847 94		23,774 33	23,854 68	47,680 00
342,424 30	355,651 38	13 227 08		19,758 41	20,333 49	21,793 75
321,722 25	345,601 08	23,878 83		19,200 05	20,238 28	14,423 50
433,412 72	334,595 70		98,817 02	18,588 65	14,292 26	31,096 00
137,780 00	371,754 54	233,974 54		20,653 03	30,825 84	12,609 00
.....	.....	.....		.....	.....	.....
\$3,760,502 16	\$5,282,082 63	\$1,621,073 61	\$99,493 14	\$492,788 75	\$589,628 23	\$429,952 00

## Cubic Yards.

.....	4,560,194
.....	2,505,300
.....	1,107,449
.....	221,183
.....	\$5 282 082 63
.....	3,760,502 16
.....	\$1,521,580 47
.....	\$3 760,502 18
.....	\$456,730 42
.....	77,910 52
.....	534,640 94
.....	\$3,225,861 22

prices to date has been used as basis for this statement.



**STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE  
MONTH OF MAY, 1894 (MAIN CHANNEL).**

SECTIONS.	Amount Done During May.	Average Monthly Requirement.	Deficiency for May.	Excess Over Monthly Requirement.	Per Cent. of Monthly Requirement.
O.....	\$ 6,468 00	\$ 13,373 30	\$ 6,905 30	.....	0.48
N.....	.....	10,614 81	10,614 81	.....	0.00
M.....	4,340 00	6,255 02	1,915 02	.....	0.69
L.....	9,436 20	8,648 36	.....	\$ 787 94	1.09
K.....	4,375 00	11,490 55	7,115 55	.....	0.38
I.....	16,250 00	11,361 94	.....	4,888 06	1.43
H.....	.....	11,966 83	11,966 83	.....	0.00
G.....	10,644 20	15,791 38	5,147 18	.....	0.67
F.....	12,282 55	9,970 98	.....	2,511 57	1.26
E.....	.....	16,142 53	16,142 53	.....	0.00
D.....	31,220 84	15,788 43	.....	15,432 41	1.98
C.....	11,903 51	13,568 10	1,661 59	.....	0.88
B.....	42,809 58	13,443 95	.....	29,365 63	3.18
A.....	3,350 68	24,224 63	20,873 95	.....	0.14
1.....	2,335 69	23,902 47	21,516 78	.....	0.10
2.....	15,650 00	18,541 43	2,891 43	.....	0.84
3.....	9,968 00	28,121 22	18,153 22	.....	0.35
4.....	21,539 40	19,623 70	.....	1,965 70	1.10
5.....	9,207 00	16,317 19	7,110 19	.....	0.56
6.....	16,794 00	26,619 64	9,825 64	.....	0.63
7.....	11,902 00	25,462 74	13,560 74	.....	0.47
8.....	39,084 50	21,295 08	.....	17,789 42	1.84
9.....	22,685 50	19,232 36	.....	3,453 14	1.18
10.....	47,680 00	22,472 29	.....	25,207 71	2.12
11.....	21,793 75	19,493 98	.....	2,299 77	1.12
12.....	14,423 50	19,200 06	4,776 56	.....	0.75
13.....	31,096 00	18,588 65	.....	12,507 35	1.67
14.....	12,609 00	20,653 03	8,044 03	.....	0.61
Totals.....	\$429,952 00	\$481,964 65	\$163,221 35	\$116,208 70	.89 21-100

**FORCE REPORT—DAILY AVERAGE, MAY, 1894.**

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Chan- nelers.	Air Com- pressors.	Conveyors.	Locomo- tives.	Cars.	Dredges.	Cableways.	Graders.
O.....	41	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.5	.....	.....
M.....	46	5	1.1	1	.....	.....	.....	.....	1.1	.....	.....	.....	.....	.....
L.....	66	38	1	1.1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
K.....	23	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
I.....	99	68	2	2.3	.....	.....	.....	.....	2	.....	.....	.....	.....	.....
G.....	62	43	1	2	.....	.....	.....	.....	.....	.....	30	.....	.....	.....
F.....	96	1	2	2.9	.....	.....	.....	.....	.....	4	27	.....	.....	.....
E.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
D.....	118	93	2	3	.....	.....	.....	.....	.....	4	33	.....	.....	2.8
C.....	113	10	2	2.2	.....	.....	.....	.....	.....	4	34	.....	.....	.....
B.....	155	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.2	.....	.....
A.....	132	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....
2.....	263	24	8	5.1	3	8	.....	.....	.....	.....	.....	.....	.....	.....
3.....	319	13	3	5.8	.....	1.2	.....	.....	.....	.....	.....	.....	.....	.....
4.....	268	27	2	4.8	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
5.....	168	4	1.5	4.5	3	.....	.....	.....	.....	5	12	.....	.....	.....
6.....	92	3	.....	1.6	.....	1	.....	.....	.....	.....	.....	2.3	.....	.....
7.....	244	7	.....	4.1	6.5	3	3	.....	1.2	.....	.....	.....	.....	.....
8.....	444	26	.....	5.2	16	2.9	7.8	6	.....	.....	.....	.....	2.5	.....
9.....	349	8	6	6.1	11.9	2.9	5.6	.....	1.8	.....	.....	.....	.....	.....
10.....	438	6	.....	5.2	18.3	3.3	9.6	1	2.9	.....	.....	.....	.....	.....
11.....	161	8	.....	6.7	12.2	.....	6.3	1	2.7	.....	.....	.....	.....	.....
12.....	110	5	.....	4	6.3	.....	2.9	1	1	.....	2	.....	.....	.....
13.....	234	8	.....	6	13.4	.....	7.4	1	.....	.....	.....	.....	.....	.....
14.....	164	10	1.9	3.6	2.0	1	3.1	.....	.....	3	71	.....	.....	.....
Totals.....	4,207	452	19.1	76.3	87.2	16.2	45.7	4.6	13.7	20	209	8.0	2.6	2.8

ADVERTISEMENT, SPECIFICATIONS, BOND  
AND PROPOSAL FOR SECTION 15.

The Clerk presented a report from the Chief Engineer, accompanied by four (4) maps and transmitting form of advertisement, specifications, bond and proposals for the letting of Section 15 of the Main Channel; and the report and enclosure were read.

In connection with the report, Mr. Cooley, Chairman, on behalf of the Joint Committee on Engineering and Finance, presented an order adopting the form of advertisement, specifications, bond and proposals for Section 15, with accompanying four (4) maps, just presented, and authorizing and directing the Clerk to publish the advertisement, as provided in the order; and the order was read.

Mr. Cooley, seconded by Mr. Russell, moved that the order be adopted, the report and enclosures be adopted, ordered printed and placed on file, and the Clerk authorized and directed to publish the advertisement as provided in the order; and the order was read.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, the report and enclosures adopted, ordered printed and placed on file, and the Clerk authorized and directed to publish the advertisement, as provided in the order.

The following is

## THE ORDER:

"WHEREAS, The Chief Engineer has this day submitted specifications and plans for the extension of the Main Channel throughout contract Section fifteen (15), and the same has been considered by the Joint Committee on Engineering and Finance; therefore, the committee recommends the passage of the following order:

*Ordered*, That the specifications and plans submitted by the Chief Engineer for Contract Section fifteen (15) be and the same are hereby adopted, and that the Clerk be and he is hereby directed to forthwith advertise the same for proposals, bids to be returned at 12 o'clock M., standard time, of August 22, 1894."

The following is

THE REPORT, WITH ADVERTISEMENT,  
SPECIFICATIONS, ETC.:

"CHICAGO, June 20, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith speci-

fications under which it is proposed to advertise for the construction of Section No. 15. These specifications cover the work of excavating and disposing of the material excavated from the channel, and the construction of retaining walls.

The detailed plans for the controlling works are not yet ready for adoption and therefore specifications for that portion of the work cannot be submitted at this time.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Enclosing specifications, contract, etc., and four (4) maps.)

The following is

## THE ADVERTISEMENT:

"SANITARY DISTRICT OF CHICAGO.

*To Contractors:*

Sealed proposals addressed to the Board of Trustees of the Sanitary District of Chicago, and endorsed:

"Proposals for excavating a portion of the Main Drainage Channel" will be received by the Clerk of the said Sanitary District at Room H, Rialto Building, Chicago, Ill., until 12 M. (standard time) of Wednesday, the 22d day of August, 1894, and will be publicly opened by the said Board of Trustees at the regular meeting held that day, or at a special meeting called for that purpose.

The work for which the said tenders are invited is the excavation of that portion of the Main Drainage Channel for the said Sanitary District, known as Contract Section fifteen (15) extending from Station 1480 to Station 1520, and consists in all of about 639,000 cubic yards of rock, of about 35,300 cubic yards of earth, and the building of 40,000 cubic yards of retaining walls.

Each proposal to be accompanied by a certified check, or cash to the amount of \$5,000.

All certified checks to be drawn on some responsible bank doing business in the City of Chicago and be made payable to the order of the Clerk of the Sanitary District of Chicago. Said amount of \$5,000 to accompany each bid will be held by the Sanitary District until all of said proposals have been canvassed and contracts awarded and signed, the return of said check or cash

to the bidder to whom said work shall have been awarded being conditioned upon his appearing within ten days after notice of such award being given, with bondsmen, and executing a contract with the Sanitary District for said work so awarded, and giving a bond satisfactory to the Board of Trustees for the fulfillment of the same in the amount of \$100,000.

All proposals must be made upon the blank forms furnished by the Sanitary District, and must give the price for each separate item of work.

The bids will be compared on the basis of the Engineer's approximate estimate of quantities, which will be furnished with copies of the specifications.

No proposal will be considered unless the party making it shall furnish evidence satisfactory to the Board of Trustees of his ability to do the work, and that he has the necessary pecuniary resources to fulfill the conditions of the contract, provided such contract shall be awarded him.

Bidders are required to state in their proposals their individual names and places of residence in full.

Specifications and plans may be seen at the office of the Chief Engineer, Rialto building, Chicago, Ill.

The said Board of Trustees reserves the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,  
By FRANK WENTER,  
*President of its Board of Trustees.*

Attest:

THOS. F. JUDGE,  
*Clerk.*

CHICAGO, Ill., June 20, 1894."

The following are

THE SPECIFICATIONS:

"THE SANITARY DISTRICT OF CHICAGO.  
Contract and specifications for Section fifteen (15) of the Main Drainage Channel in the Valley of the Desplaines River, extending from Station 1480 to Station 1520.

*This Agreement, Made and entered into this.....day of.....A. D. 189., by and between the Sanitary District of Chicago, of the first part, and*

.....  
of.....  
in.....  
of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part, by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all materials, tools, explosives, labor, and all appliances and appurtenances called for by this agreement, in the manner and under the conditions herein-after stipulated, that are necessary to the complete excavation and entire removal of earth, rock, glacial drift and other material, from that portion of the said Main Drainage Channel, known and distinguished by the specifications herein contained, and the plans accompanying them, as Section fifteen (15), together with the building of all collateral works, which, by the terms of this contract, are included in the same. Said Section to be entirely completed and prepared ready for inspection as provided for in Section 27 of an act of the Legislature of the State of Illinois, entitled "An Act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois Rivers," approved May 29, 1889, in force July 1, 1889.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and such assistants, superintendents and inspectors as the Chief Engineer may appoint, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his assistants and inspectors shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit, and to the terms and conditions herein expressed; and the Chief En-



gineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Whenever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees, or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties entrusted to them.

Whenever the word "Contractor" is used herein it shall be understood to mean the person or persons, or copartnership or corporation entering into the contract as party of the second part.

The maps, plans and profiles hereto attached are made part of this contract, but are subject to such modifications as are herein provided for.

#### SPECIFICATIONS.

1. *Location*—The work covered by and included in these specifications is the excavation of that part of the Main Drainage Channel and the building of certain collateral works for the Sanitary District of Chicago, located between a point in the northwest quarter of Section 14, Township 36 North, Range 10, East of the Third Principal Meridian, in Will County, Illinois, 1,370 feet (more or less) south of the north line of said Section 14 and a point in the northeast corner of Section 22, Township 36 North, Range 10, East of the Third Principal Meridian, in Will county, Illinois, as the same has been located by the Engineer of this District, and adopted by the action of the Board of Trustees of said District, and as shown upon the accompanying plans marked 1, 2, 3 and 4.

2. *Section*—This portion of the work is designated and known as Contract Section No. 15, and extends from the station on center line designated as 1480 to the station designated as 1520, a distance of 4,000 feet. In addition to the Main Channel herein described, certain subsidiary work such as levees, roadways and foundations herein-

after more particularly described, must be built.

3. *Grade*—The grade line at the bottom of said Main Channel at the station designated 1480 shall be 29.9 feet below the datum established by the Illinois and Michigan Canal Trustees in 1847, and shall slope thence uniformly at the rate of 0.05 of a foot vertical to 1,000 feet horizontal to Station 1520, where the elevation shall be 30.1 feet below datum.

The Sanitary District reserves the right to change said grade by raising or lowering it, or by increasing or decreasing the slope, thereby increasing or decreasing the amount of excavation; provided, that said change shall in nowise affect the terms of this contract as to price, or entitle said contractors to any compensation additional to the rate fixed by this contract, or render the Sanitary District liable for any damages whatsoever, direct or indirect. Provided, further, that the said change shall in no place affect the grade by an amount exceeding four feet; and that the Sanitary District shall notify the said contractor of any such change before any portion of said channel shall have been finished in conformity to the grade as hereinbefore specified.

4. *Dimensions of Cross Sections*—The bottom of the finished channel shall have the dimensions shown in plans Nos. 3 and 4. Where the channel is in rock the sides of said channel shall be kept vertical, except as to necessary offsets occasioned by the use of a channeling machine.

The sides of the rock channel are to be worked out with a channeling machine from top to bottom, the channels being cut ahead of the blasting. In doing this the bottom of each cut of the machine is to be made to a uniform level above the grade, and each succeeding one offset six inches from the one just preceding. The contractor will be allowed to work the rock in one or more stopes, at his option, so far as concerns the main portion of the width of the channel, but in case he elects to work the face in stopes having a greater height than the reach of the channeling machine in depth, then the blast holes are to be so disposed as to effectually prevent any blast from breaking or shattering the rock beyond the sides of the prism of the channel, which are to be left as smooth and solid as

can be obtained with a skillful and proper use of a channeling machine.

In determining the width of the channel at the top of the rock, the necessary offsets made by the operation of the machine are to be allowed for. Provided, that where the depth of the rock does not exceed twelve feet, there shall be but one reach or cut of the channeling machine made, and that when its depth is over twelve feet and not greater than twenty-four feet, there shall be but two cuts made; and that nowhere is there to be more than three cuts made for the whole depth of the rock excavation.

Where the channel is partly in earth and partly in rock, the earth shall be so excavated as to leave a berm on top of the rock equal to three-eighths ( $\frac{3}{8}$ ) of the depth of the rock surface below a level five feet above datum; provided, that the berm shall be in no event less than five feet; and provided further, that where the section is entirely in earth, the additional width at bottom shall conform to the above rule. In all cases, the earth shall be taken out with the least slope which it is found can be safely maintained until the retaining walls are built, and as may be directed by the Chief Engineer from time to time.

5—*Retaining Walls*—The sides of the rock are to be walled with masonry as soon as practicable after the channel is opened, provided suitable stone can be found in the excavation on said section which will conform to the specifications, as follows:

If the bottom of the channel is in earth or glacial drift, the retaining walls shall be founded upon a footing made in a trench dug not less than one foot below grade, and as much deeper as may be directed by the Chief Engineer, said footing course to project twelve inches beyond the face of the wall. If the bottom of the channel is in rock, the retaining walls are to be founded upon the surface of the rock. Before beginning the construction of the wall, the surface of the rock is to be cleared of earth and foreign substances, and all loose and soft rock is to be removed for the full width of its base, that the wall may be founded on a clean, solid stratum. If this stratum of natural rock inclines towards the Main Channel, with such an inclination and in such manner as, in the opinion of the Chief Engineer, to render the footing of the wall liable to slip on the

same, then the contractor shall excavate the top surface of the rock parallel with and beneath the proposed wall in accordance with the directions of the Chief Engineer, so as to effectively remove all liability of slipping. The walls in all cases are to be built to a height of five feet above datum. The dimensions of the walls shall be as shown in plans Nos. 3 and 4, the height of wall and thickness at base being determined by the elevation of suitable foundations, provided that when any part of the wall is constructed below the general natural surface of the rock, that part of the wall shall have a uniform thickness.

The tops and faces of the walls on different sides of the channel are to be distant from the centre of the channel two (2) feet further than the lines bounding the bottom of it.

The retaining walls are to be built of stone taken out of the excavation, those of the largest size and most regular rectangular shape being selected for the faces and for main binding stones; the face of each wall to be laid true to line, the stones being scabbled and carefully placed in a firm position on their natural quarry beds without the use of spawls or small stone in their joints. The walls are to be laid in courses not less than twelve inches nor more than thirty inches in thickness, no stone being used in the face less than twelve inches in thickness, and whose depth and width is less than twice its thickness, each course being carried through the whole thickness of the wall before another course is begun. In laying each course, the larger stones are to be carefully placed in position, covering the face of the wall in such a manner as to break joints with the larger stones of the preceding course, thereby thoroughly binding the wall into a solid mass. Only selected stones are to be used for the top course.

The face of the wall shall, as indicated in plan No. 3, in general, be of ranged rubble and the backing of random rubble wall, laid in cement mortar. Sand used to be coarse, clean and sharp, free from loam and pebbles.

Cement—The best American hydraulic cement shall be used, brand and quality to be subject to approval by the Chief Engineer, who shall from time to time cause such tests to be made as may seem to him



proper for determining the quality of the cement which is shipped for use in the work. The development of tensile strength shall be 100 pounds per square inch, after having set seven days. The contractor shall keep on hand a supply of cement equal to the average consumption in the work during a period of ten days, and it shall be protected against rain or dampness, and so stored as to make the procurement of samples for testing easy. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

**Mortar**—The mixture shall be of sand and cement in equal parts. The sand and cement shall be thoroughly incorporated with each other before water is added. All mortar used shall be freshly mixed in clean boxes. No hard or partially set mortar shall be used. Water for mixing shall be clean. In laying the wall, care shall be taken to secure bond by proper use of headers and stretchers, so far as the stone available for the work will admit, but the wall shall be so thoroughly slushed with cement mortar as to insure the filling of all interstices, and the development of a monolithic mass, so soon as the mortar shall have set. Stone used shall be sound and clean.

The wall shall be pointed with the specified mortar throughout before acceptance; all joints shall be raked out to a depth equal to three times their width to receive pointing. Work on cement masonry walls to be begun after the period of freezing in in the Spring, and be suspended before freezing begins in the Fall.

6. *Back Filling*—The space back of the walls at the east side of the channel shall be filled with material excavated from the Main Channel in manner and form as follows:

All the space between the walls and the embankment shall be filled. The surface of the filling at the edge of the walls shall be at elevation five (5) feet above datum, and shall slope away from the wall one foot vertically for each ten (10) feet for thirty (30) feet of horizontal distance, where the elevation shall be eight (8) feet above datum; thence the top of the filling shall be level until the top of the embankment is reached.

The space back of the walls at the south end of the section, and between Station 1,480 and Station 1,510 on the west shall be

filled with material excavated from the Main Channel in manner and form as follows:

The surface of the filling at the edge of the walls shall be at an elevation five (5) feet above datum and shall slope away from the walls one foot vertically for each ten (10) feet for thirty (30) feet of horizontal distance where the elevation shall be eight (8) feet above datum; thence the top of the filling shall be level until its total width is forty feet at its top; thence the slope of the filling at the parts most remote from the channel shall be not steeper than one and one-half ( $1\frac{1}{2}$ ) horizontal to one (1) vertical.

The form of the back filling at the southeast corner of the excavation shall be the result of the intersection of the above described fillings carried southward and eastward past the corner.

7. *Clearing and Grubbing*—The contractor will be required to remove all trees, stumps, buildings, fences, or other incumbrances within 150 feet of the center line of the channel, or that may be in the way of any collateral or subsidiary work herein specified. All such material of value, except such as the Sanitary District may elect to retain, shall be the property of the contractor, and all worthless material shall be disposed of as directed by the Chief Engineer. The cost of this work shall be included in the prices for excavation as hereinafter stated.

8. *Levee*—The said contractor shall build at his own cost and expense all or any levees which may be necessary to protect the work, provided for in this contract, during the progress of the same. And should flooding occur either before or after the building of any such levees, any and all expenses and damages to which he may be put shall be borne by the said contractor.

The contractor shall construct a levee joining the southern extremities of the east and west embankments shown on plan No. 2. It shall be constructed of glacial drift taken from the Main Channel excavation. It shall be fifteen (15) feet wide on top and shall have side slopes not steeper than one and one-half ( $1\frac{1}{2}$ ) horizontal to one (1) vertical. Its location shall be as shown on plans No. 1 and 4. It shall be constructed in such manner as to be water tight when completed. The surface of



the ground on which it is to rest shall be plowed and thoroughly grubbed, and all vegetable material removed. The elevation of the top of this levee shall be six (6) feet below datum.

9. *Disposition of Material*—The contractor, except as otherwise specified, is to dispose of all material to be excavated under the terms of this contract at his own expense and in the most convenient manner, in waste banks on the right of way; provided that the foot of the outer slope shall not approach the margin of the right of way closer than ten feet.

No material shall be deposited on that part of the right of way to the west of the Main Channel between Station 1510 and Station 1520, nor on the east side of the embankment east of the Main Channel, as shown in plan No. 4. Nor shall any portion of the material in waste banks be so deposited as to reach an elevation higher than eight (8) feet above datum.

10. *Drainage* — The contractor is to provide all pumping machinery and operate the same at his own cost and expense during the time of excavation, and until the whole work is fully completed and inspected, as provided for in other sections of this contract. The contractor shall dispose of any water pumped in such manner as not to interfere with the operations of other contractors for the Sanitary District.

11. *Classification of Material* — All material excavated under the provisions of this contract is to be classified under one or the other of two heads, viz: 'glacial drift' and 'solid rock.'

Glacial drift shall comprise the top soil, earth, muck, sand, gravel, clay, hard pan, boulders, fragmentary rock displaced from its original bed, and any other material that overlies the bed rock.

Solid rock shall comprise all rock found in its original bed, even though it may be so loosened from the adjacent underlying rock that it can be removed without blasting.

12. *Quantity of Material*—A profile of the average surface of the ground approximately on the line of the Main Channel, and also of the supposed surface of the bed rock is shown on plan No. 2. These profiles, though approximately correct, do

not purport to be absolutely so, and are only presented as approximations, as is also the schedule of quantities attached as an appendix hereto. The contractor is to take all risk as to variations of the total quantity of material excavated, as well as the relative amount of glacial drift and solid rock.

13. *Highways*—All public roads, crossing or lying adjacent to the Main Channel, shall be kept open and unobstructed during the progress of the work. No interference with any public road will be allowed until a temporary or permanent road has been provided, under the direction of the Chief Engineer, which will permit safe and free travel. No interference will be allowed with any railway or canal until such time as other and proper provision for the operation of such railway or canal has been made.

14. *Bridges and Structures*—The Sanitary District reserves the right to enter upon the said Main Channel and right of way at any time or place, after or before the excavation has been completed, for the purpose of erecting, or preparing for the erection, of any bridge or bridges, or the building of any road or other structure, provided that such work of erection or preparation therefor shall not interfere with the contractor in carrying out the provisions of this contract. To this end the contractor shall make, or allow the Sanitary District to make, at the expense of said Sanitary District, such changes in railroad tracks, buildings or structures, as will not interfere with the operations of said contractor, and that, in the opinion of the Chief Engineer, are necessary to the accomplishment of the purpose in view.

Said contractor, if so ordered by the Chief Engineer, is to make all necessary excavations in or adjacent to the Main Channel, and do all necessary grading, as directed by the Chief Engineer, that may be needed for the building of any kind of structure which the Sanitary District may wish to erect, and he is to be paid therefor at the rates hereinafter given for the Main Channel; provided, that in case a bridge is to be built having a center and a protection pier, the said contractor is to widen out the sides of the Main Channel, as may be directed by the Chief Engineer, and is to leave a mass of rock in the middle of the channel to serve as a protection pier of the dimen-

sions and shape directed by the Chief Engineer, the sides of said mass being taken out with a channeling machine, as hereinbefore specified for the Main Channel.

15. *Regulating Works*—The Sanitary District will erect certain regulating works at the west side of the Main Channel, between Station 1510 and Station 1520.

That this work may be undertaken in proper time, the contractor herein shall complete the excavation of the west one hundred feet of the Main Channel between said stations on or before May 1, 1895, and shall thereafter so conduct his work as not unnecessarily to interfere with the construction of said regulating works. He shall also, at said date, vacate and cease to occupy for any purpose that part of the right of way of said Sanitary District between said stations and west of the west edge of the Main Channel. It is understood that no part of the construction of said regulating works falls within the terms of this contract, except such excavation and grading as may, at the option of said Sanitary District, be ordered by its Chief Engineer under the preceding paragraph hereof.

16. *Explosives*—The contractor is to furnish all explosive compounds for blasting the material provided to be excavated under this contract; and, whereas, the storing, handling and use of so large an amount of explosive material requires the utmost care and discrimination, it is therefore understood and agreed that the said contractor shall arrange for the storage of all explosive materials at a distance not less than 600 feet from the work, or from any other magazine, or from any dwelling occupied for a habitation, and that not more than 5,000 pounds shall be kept in one place. It is further understood and agreed that said explosive material shall in no case be brought onto the work except when needed for the purpose of charging the blast holes, and then only in such quantity as is needed for the particular work in hand, and that none but skilled and careful men shall be employed in the handling or use of said explosives, and that no liquid explosive shall be used.

It is further understood and agreed that the ground surrounding all magazines shall be kept free of vegetable or combustible material for a radius of one hun-

dred feet, and that their walls shall be made bullet proof, to a height of one foot above the contained explosives, and that in no case shall they be made of brick or stone. It is also understood and agreed that such signals of danger, as may be directed by the Chief Engineer shall be given or displayed before the firing of any blast, and that the said contractor shall conform his acts to and obey all rules and regulations relative to the handling of explosives and the firing of blasts, for the protection of life or property, which may be made by the Chief Engineer from time to time.

17. *Measurement*—Measurement for all excavated material will be made in excavation by the cubic yard of twenty-seven cubic feet, based upon the survey and cross-section notes of the Chief Engineer.

All "glacial drift" excavated under the direction of the Chief Engineer, whether in or out of the Main Channel, will be included in the measured quantities.

"Solid rock" excavated within the limits of the dimensions and grade of the Main Channel, or of any river diversion channel, or for the placing of any bridge or other structure, as hereinbefore specified, or that shall be taken out by direction of the Chief Engineer, shall be included in the measured quantities; provided that nothing will be included for rock that comes out below grade in the excavation of any channel.

"Retaining walls," will be measured by their net cubical contents, as specified.

The prices given herewith are to include all work herein specified, as clearing and grubbing, levees for protection, pumping, roadways, for working, back filling of retaining walls, and generally all work and material found necessary in prosecuting this contract.

18. *Extra Work*—All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Chief Engineer at the time such labor or material are furnished, or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which price is fixed by this contract.

Whenever work is required to be done



which is not now contemplated or covered by the prices hereinafter given, the Chief Engineer shall fix such prices for the work as he shall consider just and equitable, and the contractor shall abide by such prices; provided he enters upon such work with full knowledge of the prices so fixed by the Chief Engineer; but if the contractor declines executing said work at the prices fixed by the Chief Engineer, then the Sanitary District may enter into contract with any person or persons for its execution, the same as if this contract had never existed; and if extra work, or work not provided for in this contract, is performed by the contractor before prices have been fixed for such work, then the Chief Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept of said prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with 10 per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

19. *Responsibility of Contractor*—All the work provided for in this contract is to be done in a skillful and workmanlike manner, under the direction and supervision of the Chief Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Chief Engineer to properly give lines and grades, and to measure the work from time to time.

All work will be subject to inspection by the said Chief Engineer and his said agents, and if not in accordance with the requirements of this contract, it is to be made good by the contractor.

The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The con-

tractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to assign or sub-let all or any part of it, it being distinctly understood and agreed that the assigning or sub-letting of the work covered by this contract, or any part thereof, shall work a forfeiture of the contract at the option of the Sanitary District.

The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case there is a substantial failure on the part of the contractor to comply with the provisions of this contract as to progress and character of the work, or to comply with the provisions of this contract in regard to giving bonds for the performance thereof, the party of the first part may declare this contract forfeited; and in such case the reserve of 12½ per cent. herein provided for, and any other retained percentage, shall be forever retained by the said party of the first part as liquidated damages for such failure of second party to so prosecute or complete said work.

20. *Changes in Plan*—In addition to the reservations hereinbefore made, the Sanitary District reserves the right to make alterations in the line, grade, plan, form, dimensions, or material of the work herein provided for, either before or after the beginning of construction; provided, that if the alterations are made, the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of the work to be done they shall not constitute a claim for damages, or for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of any change of plan must be given the contractor in writing. And it is expressly agreed that no alterations, or additions, or extra work are to be paid for unless directed in writing.

21. *Tools*—The contractor is to furnish all the tools of every kind and description, including pumps, cars and tracks, neces-



sary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, buildings and material of all kinds from the right of way of the Sanitary District.

22. *Precautions*—Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, or which in the judgment of the Chief Engineer shall be necessary, shall be taken by the contractor.

23. *Workmen*—The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Chief Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

And, further, the contractor shall provide and employ, upon the order of the Chief Engineer, men, teams, tools, and machinery suited to the work, in such number and quantity as may in the judgment of the said Chief Engineer, be necessary for carrying on and completing the works in conformity with the time limit stated by this contract. And, further, it is understood and agreed that the Chief Engineer may order the prosecution of any particular portion of this work which, in his judgment, needs special expedition, and it shall be so done as directed by him.

E—

*Damages*—If any damage shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands or to any property adjoining, or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, for which the contractor herein is legally liable, the Engineer shall have the right to estimate the amount of said damage and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damage shall be deducted from the money due said contractor under this contract.

Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or his employes, that is in the nature of a legal liability, and he hereby agrees to indemnify and to

save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any injuries or damages received or sustained by any person or persons by or from said contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any failure or negligence in guarding or protecting the same; or by or on account of any act or omission of said contractor, his agents or employes; and the said contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suits or claims for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

F—

*Sanitary District Law*—The said contractor hereby agrees to carry on all the work provided for in this contract, in strict conformity to the requirements of the law under which the Sanitary District of Chicago is organized, entitled "An act to create Sanitary Districts and to remove obstructions from the Desplaines and Illinois Rivers;" approved May 29, 1889, in force July 1, 1889, which provides in Section 11, among other things, that "No person shall be employed on said work unless he be a citizen of the United States or has in good faith declared his intentions to become such citizen. In all cases where an alien after making his declaration of intention to become a citizen of the United States shall, for the space of three months after he could lawfully do so, fail to take out his final papers and and complete his citizenship, such failure shall be *prima facie* evidence that his declaration of intention was not made in good faith; and that eight hours shall constitute a day's work."

G—

*Time*—The contractor agrees to begin work within fifteen days after the execution of this contract. He agrees to carry it on at such points and in such order of procedure, as the Chief Engineer may direct.

All the work provided to be done under this contract shall be completed and ready for inspection on or before the 30th day of June, of the year 1896. All levee work to

be completed on or before November 1, 1894.

The work done each month shall not be less than such proportion of the whole work as one month bears to the total number of months agreed upon for the completion of said work, provided that the time from the date of this contract to November 1, 1894, shall be considered as one month, and the last two months before date of completion, as one month, and provided further, that this rate shall not be required if at any time the aggregate work done exceeds the total proportion due to the time that has passed since October 1, 1894; and always provided that the Sanitary District shall not be obligated to make payment in excess of the above monthly proportion; and said October 1, 1894, is hereby fixed as the date from which all progress estimates shall be made.

It is also agreed that the monthly progress herein specified shall be estimated upon the basis of cost, that is to say, such an amount of work shall be done each month as shall earn for the contractor a sum equal to the quotient of the aggregate approximate cost of the different kinds of work herein provided for, at the prices herein specified, divided by twenty-one, the number of months within which all said work is to be executed.

H—

*Price*—In consideration of the said work being carried on and completed in time and manner as specified, the said party of the first part agrees to pay to the said party of the second part, and the said party of the second part agrees to receive and accept as full compensation therefor, including the furnishing by him of all necessary materials, tools, labor, machinery and appliances:

For each cubic yard of rock excavation the sum of.....dollars (\$.....).

For each cubic yard of glacial drift excavation,.....dollars (\$.....).

For each cubic yard of retaining wall laid in cement mortar,.....dollars (\$.....).

I—

*Time and Manner of Payment*—It is agreed by the party of the first part, that on or before the 10th and 25th days of each month, during the progress of the work, and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the

second part to the amount of 87½ per cent of the contract price of the approximate amount of work done during the previous half month, upon written certificates from the Chief Engineer that such approximate amount of work has been done during that period, 12½ per cent being reserved until the completion and acceptance of the whole work, provided the work has been done in all particulars in conformity with this contract, and to the satisfaction of the Chief Engineer.

J—

*Grading of Prices*—It is hereby agreed by the said party of the second part that if his manner of conducting the work is such that at the time of making any progress estimate a markedly greater proportion of the top material has been excavated than of the bottom material, then the Chief Engineer shall in making such estimates, ascertain what amount has been excavated up to that time of any material lies above, and what below, a horizontal plane dividing the mass of said class of material into equal parts; and if the upper portion exceeds the lower, then the total amount of material found to have been excavated previous to the time of making the estimate shall be reduced by 10 per cent of said excess, and estimates or certificates issued on the remainder, with the percentage deductions provided for in the preceeding Section I.

K—

*Certificate*—On all the work provided for in this contract being completed, in accordance with the contract, and to the full satisfaction of the Chief Engineer, and on its being inspected by him and a certificate made by him setting forth the amount of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said second party by the said certificate of the said Chief Engineer, including the 12½ per cent reserve.

L—

*Failure to Complete*—It is further agreed by the said party of the second part that if the work to be done under this contract shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion



within the time specified, or, if at any time the Chief Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is wilfully and persistently violating any of the conditions or covenants of this contract, or is not executing said contract in good faith, the said party of the first part shall have the power to notify said contractor to discontinue all work, or any part thereof, as may be designated by said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as the said Chief Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing said Chief Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work shall be charged to the said contractor, and any moneys that may then be due, or may at any time thereafter become due to said contractor under and by virtue of this contract, shall be applied by first party to the payment of such cost, so far as same shall suffice therefor, and the remainder of the cost of so completing said work, if any, shall be paid by said contractor to first party on demand.

*M—*

*Payment of Laborers*—Said contractor shall pay the laborers employed by him promptly at regular intervals, and shall not pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States. And if at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed, and in manner aforesaid, or for material furnished upon said work, then the party of the first part shall have power to pay for such labor or such material out of any money or moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor.

In any such case the party of the first part is hereby authorized and empowered by the said party of the the second part to

ascertain the amount or amounts due or owing from said contractor to any laborer or laborers, or to any person for material furnished, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said contractor, and the amount or amounts so found by the said party of the first part to be due and owing to said laborer or laborers, or to said materialmen, shall be final and conclusive as against said contractor, and may thereafter be paid over by the said first party to such laborer, laborers or materialmen.

*N—*

*Contractor's Bond*—The contractor shall furnish a bond in the sum of one hundred thousand (\$100,000) dollars, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract, and should the sureties on said bond at any time fail financially, or be, in the opinion of said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten day's notice thereof in writing, require said contractor to furnish a new or additional bond in the place of the bond so having become insufficient or worthless.

*O—*

*Final Payment*—The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay, and it hereby binds itself to pay the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work



should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

P—

*Health Regulations*—Said party of the second part agrees to introduce among ..... employes, such regulations in regard to cleanliness, the care of dwellings and premises and the disposition of garbage and offal, as shall conduce to their health and tend to prevent the inception and spread of contagious and infectious diseases among them, to make provision for an ample supply of suitable drinking water, and to take such means as shall effectually prevent the creation of a nuisance on any part of the right of way of said Sanitary District or adjacent thereto, and as may be directed by the Sanitary Inspector of said Sanitary District.

IN WITNESS WHEREOF, on the day and year first above written, the said Sanitary District of Chicago has caused this Agreement to be signed by its President, and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set ..... hand .. and seal ..

THE SANITARY DISTRICT OF CHICAGO,  
[SEAL.]

By .....  
President.

Attest: .....  
Clerk.

.....[SEAL.]  
.....[SEAL.]  
.....[SEAL.]  
.....[SEAL.]”

The following is the

CONTRACTOR'S BOND :

“*Know all men by these presents*, That we, .....  
.....  
.....  
of .....  
are held and firmly bound unto the Sanitary District of Chicago, in the penal sum of ..... dollars, lawful money of the United States, for the payment of which sum of money well and truly to be made, we bind ourselves, our heirs, executors and

administrators, jointly and severally, firmly by these presents.

Sealed with our seals and dated this ..... day of ..... A. D. 189..

*The condition of the above Obligation is such*, That, whereas, the above bounden ..... ha .. entered into a certain contract with the Sanitary District of Chicago, hearing date the ..... day of ..... A.D. 189.., for excavating Section fifteen (15) of the Main Drainage Channel of the Sanitary District of Chicago, and building certain collateral works in connection therewith, in Will County, Illinois, as set forth in said contract

Now, if the said ..... shall in all respects, well and truly keep and perform the said contract, on ... part, in accordance with the terms thereof, and the plans and specifications therein contained and referred to, and in the time and manner therein prescribed, and further shall indemnify, keep and save harmless the Sanitary District of Chicago against all liabilities, judgments, costs, damages and expenses, which may in anywise come against said Sanitary District, in consequence of the granting of such contract, or which may in anywise result from the carelessness or neglect of said.....

agents, employes or workmen, in any respect whatever, or which may result on account of any infringement of any patent by reason of the materials, machinery, device or apparatus used in the performance of said contract, and, moreover, shall pay to said Sanitary District any sum or sums of money determined by the Chief Engineer to be due said Sanitary District, by reason of any failure or neglect in the performance of the requirements of said contract, and shall pay all claims and demands whatsoever, which may accrue to each and every person, who shall be employed by ..... in or about the performance of said contract, then this obligation to be null and void, otherwise to remain in full force and effect.

*And it is hereby expressly understood*

and agreed, and made a condition hereof, that any judgment rendered against said Sanitary District of Chicago, as aforesaid, in any suit for damages occasioned by the carelessness or neglect of said.....

.....or.....agents, employes or workmen, in the premises, when notice of the pendency of such suit shall have been given said..... shall be conclusive against each and all parties to this obligation, as to amount, liability, and all other things pertaining thereto.

.....[SEAL.]

.....[SEAL.]

.....[SEAL.]

.....[SEAL.]

Approved.....189..

Clerk."

The following is the

#### FORM OF PROPOSAL :

*"To the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The undersigned hereby certif ..... that ..... have examined the plans on file in the office of the Chief Engineer of the Sanitary District of Chicago, and the annexed specifications and form of contract for the excavation of Section fifteen (15), a portion of the Main Drainage Channel of said Sanitary District as herein described, and propose ..... to do all the work and to furnish all material, tools, explosives, labor and all appliances and appurtenances necessary to the full completion of the same, at the rates and prices for the said work, as follows, to-wit:

Contractor is to furnish and operate pumping plant and to provide all other appliances for doing the work, and to dispose of all material in spoil banks, as shown on the plans.

Section No. 15—	Cents.
Glacial drift, per cubic yard.....	—
Solid rock, per cubic yard.....	—
Retaining wall, per cubic yard.....	—

The above proposals are based upon the conditions and stipulations made in the advertisement inviting proposals for said work, and in accordance with the contract, specifications and plans for the same on file in the office of the Chief Engineer of

the said Sanitary District, and should the said Board of Trustees award said work to the undersigned, then.....agree to.....enter into contract for the same and to do the work as specified.

In accordance with the requirements of said advertisement, there is deposited herewith the sum of.....dollars, which, under the terms of the advertisement, entitle.....to bid on said work, the same to be refunded to.....upon the faithful performance of all the conditions stipulated in the said advertisement for proposals.

It is further agreed that should the within proposal for excavating said section of said Main Drainage Channel be awarded to.....and.....should fail or neglect to enter into contract with the said Sanitary District in the time and in the manner required by the said advertisement for proposals, and to furnish bonds as therein required to the satisfaction of the said Board of Trustees, then the said sum of.....dollars, deposited herewith, shall become forfeited to the Sanitary District as liquidated damages.

Name .....

Address.....

Name .....

Address.....

Name .....

Address.....

Name .....

Address.....

NOTE—Companies or firms bidding must give the individual names and addresses of the persons comprising such firms.

*Received from the Sanitary District of Chicago the sum deposited with the above proposal, the same being ..... dollars.*

CHICAGO,.....189..

APPROXIMATE QUANTITIES ON SECTION  
NO. 15, UPON WHICH BIDS ARE  
ASKED.

	Cubic Yards.
Glacial drift.....	85,300
Solid rock.....	639,000
Retaining wall.....	40,000



## MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of May, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

"CHICAGO, June 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith the monthly report for May, 1894. The total amount paid out by this Department during said month is as follows:

*Salaries.*

Attorneys .....	\$1,300 00	
Office force.....	320 00	
	<hr/>	\$1,620 00

*General Expenses.*

Court costs.....	\$794 60	
Right of way.....	534 65	
Expense account.....	166 61	
Printing and Stationery	49 40	
	<hr/>	\$1,545 26

*Land Account.*

Right of way (for which deeds were passed).....	\$29,125 00	
Taxes for 1893, (Cook County) .....	4,008 92	
	<hr/>	\$33,133 92
Total.....		<hr/> \$36,299 18

The preliminary injunction obtained by Alfred Harlev, referred to in my last report, was dissolved and the bill dismissed. The opinion delivered by Judge Smith in disposing of same has already been communicated to your Honorable Body.

The preliminary injunction obtained on application of Johnson, Bradley and Gobel, restraining for ten days the letting of said Section one (1) necessarily demanded the close attention of this department until it was disposed of. A detailed answer was made to the allegations of the bill, and affidavits drawn in support thereof, that the questions involved might be heard upon their merits. The injunction was dissolved and the bill dismissed upon the grounds stated in my communication to the Board at its last meeting.

Attention has been given to closing the

contracts for Sections N and O, and also to that for Section one (1).

The purchase of what is known as the Daggett land, being about 233 acres in Sections twenty-two (22) and twenty-seven (27), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, in Will County, has been concluded.

The suits for the condemnation of the McWeeney, Geddes and Harris lands in Will County have been tried by our Attorneys there, and verdicts obtained at fair valuations. Negotiations are pending for the acquisition of the only two remaining large tracts this side of Summit with fair prospect of settlement at a reasonable price.

An ordinance for an additional issue of bonds of the District to the amount of three million (\$3,000,000) dollars has been prepared by this department.

During the coming month the department will be largely occupied with right of way matters below Lockport and with questions connected therewith.

Respectfully submitted,

(Signed) ORRIN N. CARTER,

*Attorney."*

## PURCHASE OF "WILSON" LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from Miriam Wilson of certain right of way lands in Will County, and authorizing and directing the Clerk to pay for the said right of way lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Miriam Wilson, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Miriam Wilson,



on the voucher of the Attorney, for the said right of way lands, as provided in the report.

The following is

THE REPORT:

“CHICAGO, June 20th, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with Mariam Wilson for the purchase from her, for the corporate purposes of this District, of the land hereinafter described, for the sum of six thousand seven hundred and eighty-seven dollars and fifty cents (\$6,787.50).

Your Committee recommends that the Clerk of this District be authorized to pay, on the voucher of the Attorney, to said Mariam Wilson, the sum of six thousand seven hundred and eighty-seven dollars and fifty cents (\$6,787.50), in full payment for the following described land, to-wit:

Lot four (4) of the Subdivision of the southwest quarter (S. W  $\frac{1}{4}$ ) of Section twenty-two (22), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, except that part of said lot bounded and described as follows: Commencing at the southeast (S. E.) corner of said lot and running thence north (N.) on the east (E.) line thereof three hundred and forty-eight and forty-eight one-hundredths (348.48) feet; thence southwesterly to a point on the south (S.) line of said lot, two hundred and eighty-six and forty-four one-hundredths (286.44) feet west (W.) of said southeast (S. E.) corner of said lot; thence east (E.) on said south (S.) line to the place of beginning; said premises lying and being situate in the County of Will, in the State of Illinois.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*

L. E. COOLEY,  
W. H. RUSSELL,  
JOHN J. ALTPETER,  
THOMAS KELLY,

*Joint Committee on Finance and Engineering.”*

PAYMENT FOR “HARRIS” AND “FOLEY” LANDS.

Mr. Eckhart, Chairman, on behalf of the Joint Committee on Finance and En-

gineering, presented an order, authorizing and directing the Clerk to pay Henry Spangler, County Treasurer of Will County, Illinois, on the voucher of the Attorney, a certain sum as a deposit for right of way lands in said County, owned by John McWeeney, James Harris, Thomas Foley, et al., as provided in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Kelly, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk authorized and directed to pay Henry Spangler, County Treasurer of Will County, Illinois, on the voucher of the Attorney, a certain sum as a deposit for right of way lands in said county, owned by John McWeeney, James Harris, Thomas Foley, et al., as provided in the order.

The following is

THE ORDER:

“*Ordered*, That the Clerk of this District be and he is hereby authorized and directed to pay, on the voucher of the Attorney, to Henry Spangler, County Treasurer of Will County, Illinois, the sum of one thousand seven hundred and nineteen and sixty one-hundredths (\$1,719.60) dollars, to be held by said Treasurer on deposit for the use and benefit of the owners of and persons interested in the following described property in Will County, Illinois, to-wit:

Lot four (4) of the Subdivision of the east (E.) fraction and the west (W.) part of the west (W.) fraction of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section twenty-two (22), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian.

Said sum being the amount awarded by the jury by their verdict, returned May 29th, 1894, and by the order of judgment entered thereon June 6th, 1894, in case No. 14,677 in the Circuit Court of said Will County, Illinois, entitled Sanitary District of Chicago vs. John McWeeney et al.”

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Russell, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*

June 20,]

—2019—

[1894.

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES,  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

JUNE 27 AND 30, 1894.

OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and twenty-eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, June 27, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7), and subsequently Mr. Gilmore, making a total of eight (8) members, were present.

MINUTES.

The minutes of the regular meeting

held June 20, 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Boldenweck.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

P. F. Pettibone & Co. (stationery).....	\$36 53
Thomas Bagley (row boats).....	51 96
Thomas Bagley (use of boats).....	15 00
	————— \$ 103 49

CLERICAL DEPARTMENT.

Waukesha Hygeia Mineral Springs Co. (water).....	\$ 3 75
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## LAW DEPARTMENT.

Waukesha Hygeia Mineral Springs Co. (water).....	\$ 3 75	
Jas. H. Gilbert, Sheriff Cook County, (services).....	3 00	
		\$ 6 75

## LAW DEPARTMENT.

<i>Land Account—</i>		
Orrin N. Carter (accrued taxes, Will County).....	\$ 371 75	

## GENERAL ACCOUNT.

Regan Printing House (printing bond prospectus).....	\$ 15 60	
The Chicago Deposit Vault Co. (rent, April, 1894).....	703 33	
		\$ 718 93
Grand total.....		\$1,204 67

Mr. Boldenweck, seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITION.

The Clerk presented the following requisition:

No. 481, Law Department, (stationery).....	\$5 25
--	--------

Mr. Boldenweck, seconded by Mr. Russell, moved that Requisition No. 481, for the Law Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 481, for the Law Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the

District for the week ending June 23, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, June 27, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending June 23, 1894, as the same have been reported to me:

Engineering Department.....	123
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	46

Total employes..... 182

Respectfully submitted,

(Signed) THOS. F. JUDGE,

*Clerk.”*

## RAISING ROMEO HIGHWAY AND CONSTRUCTING BRIDGE.

The Clerk presented a report from the Chief Engineer, accompanied by tracing, with reference to the cost of raising the Romeo highway and constructing bridge over the river diversion at that point; and the report was read.

Mr. Boldenweck, seconded by Mr. Altpeter, moved that the report be ordered printed, and, with accompanying tracing, referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the report was ordered printed, and, with accompanying tracing, so referred.

The following is

## THE REPORT:

“CHICAGO, June 22, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In the matter of the improvement of the Romeo highway, I have had estimates prepared by Assistant Engineer Harrison, who has also forwarded a plat which I submit herewith showing what, in his judgment, should be done to make that a permanent improvement. In his letter he says that

"during the floods of March this year it was found that the water in the Desplaines River was about 0.7 feet higher immediately above the highway than it was immediately below the highway. This shows plainly that the bridge openings are not large enough to pass the amount of water in the river at flood stages. Should the highway be raised so that the water cannot flow over it the contraction would be still greater. I have therefore made the estimate for an increased length of bridge and such excavation in the river as will allow the water to approach the bridge freely. The proposed grade of the highway is +8 ft. C. C. D.. The channel of the River Diversion is to be 200 feet wide, having a fall of 0.12 feet in 1,000 feet, the elevation of the bottom of the channel at Station 1320 being +1.40 C. C. D.. The highway is to be 20 feet wide on top, with slope of  $1\frac{1}{2}$  to 1 foot.

The estimate is as follows:

Excavation 33,000 cu. yds. rock at $79\frac{1}{4}c$ .....	\$26,152 50
Excavation 4,000 cu. yds. glacial drift at $30\frac{1}{4}c$ .....	1,210 00
Total cost of excavating channel.....	<u>\$27,362 50</u>
Grading highway, 4,800 cu. yds. loose rock, at 10c per yard, overhaul.....	\$ 480 00
1,415 cu. yds. gravel at \$1.00...	1,415 00
Total cost of roadway....	<u>\$ 1,895 00</u>
Culvert masonry, 111 yds. at \$4.00.....	\$ 444 00
Lumber, 7,205 ft. at \$14.00 B. M.	100 87
Total cost of culvert.....	<u>\$ 544 87</u>

Owing to the condition of the present bridge I advise renewing and replacing the 25-foot spans now in place with 50-foot spans, and my estimate for the bridging is as follows:

Five 50-foot spans, \$500 each.....	\$2,500
125 yards of masonry at \$9.00.....	1,125

The total cost of the proposed improvement is \$33,427.37. This is exclusive of any charge for right of way.

The condition of this roadway during the March floods will be remembered by several members of your Honorable Board. The roadway was overflowed in many places to a depth of from two to three feet, making its use uncomfortable, not to say dangerous.

It would seem necessary that something should be done and I hardly think

that you can accomplish the desired result for less money than the estimate given. The Highway Commissioners will raise the grade from our Main Channel to where the line of our levee crosses the highway, without charge to us.

Yours truly,

(Signed)

ISHAM RANDOLPH,

*Chief Engineer."*

(Accompanied by tracing)

#### ADDITIONAL WORK ON CANAL BANKS ON SECTION 1.

The Clerk presented a report from the Chief Engineer, stating that at the meeting held May 14, 1894, (page 1946 of the Proceedings) payment of bills incurred by raising the Illinois and Michigan Canal banks on Sections A and B had been authorized, and that further work had been required on said banks on Section 1 (between Stations 733 and 740, taken from Section A,) and requesting that payment of the bill for said work be authorized; and the report was read.

In connection with the report, Mr. Cooley presented an order authorizing the payment for said work on the Canal banks on Section 1 and directing the Chief Engineer to return voucher for the same, as provided in the order; and the order was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be ordered printed and placed on file, and the order adopted.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Excused and not voting—Mr. Gilmore—one (1). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, and the order adopted.

The following is

#### THE REPORT:

"CHICAGO, June 25th, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Under date of May 14th (see page 1946 of Proceedings) I asked you to pass an order for the payment of labor performed in raising the spoil bank of the Illinois & Michigan Canal to a height of 20 feet above datum on Sections A and B and you granted my request. When addressing you at that time the fact that Section A had been shortened



and the west 700 feet added to Section 1, slipped my memory, and consequently I asked no authority for making payment for the portion of the Canal levee included between Station 733 and Station 740. The cost of that work was \$241.57 and I now ask that you pass a voucher in favor of Heldmaier & Neu, who performed the work, for that amount.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

The following is

THE ORDER:

"WHEREAS, Owing to changes in the division line of Sections A and 1, certain levee work was not covered by the authority of May 14, 1894, (page 1946 of the Proceedings) between Stations 733 and 740; therefore be it

*Ordered*, That expenditures of \$251.57, for certain levee work between Stations 733 and 740 is hereby authorized and the Chief Engineer is instructed to return voucher for same, in accordance with his report this day submitted."

APPROVAL OF ADDITIONAL EXTRA  
WORK CAUSED BY FLOODS  
ON SECTION C.

The Clerk presented a report from the Chief Engineer concerning additional extra work done in raising the Illinois and Michigan Canal banks on Section C, in addition to the appropriation authorized at the meeting held March 28, 1894 (page 1839 of the Proceedings), and asking the payment of the excess; and the report was read.

In connection with the report, Mr. Cooley presented an order authorizing the payment for said additional extra work on Section C, as set forth in the report and as provided in the order; and the order was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the report be ordered printed and placed on file, and the order adopted.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, and the order adopted.

This following is

THE REPORT:

"CHICAGO, June 26, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have a bill from the Western Dredging and Improvement Company for work done in raising the Illinois and Michigan Canal spoil bank, Section C, to an elevation of 20 feet above datum.

The total cost for work on this  
Section is.....\$579 08  
Previous payments..... 167 49

Balance due.....\$411 59

This sum is in excess of the authority given March 28th for doing the work covered by the bill (see page 1839 of Proceedings).

The work has been completed, and I respectfully request an order for its payment.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

The following is

THE ORDER:

"WHEREAS, The cost of certain levee work on Section C has been in excess of the amount authorized by the Board of March 28, 1894 (page 1839 of the Proceedings), and further authority is required; therefore, be it

*Ordered*, That the additional cost of said work as returned by the Chief Engineer, in report this day submitted, be approved, and a voucher therefor be authorized as recommended."

SUSPENSION OF CLAUSE "J" OF CONTRACT FOR SECTIONS 2 AND 4  
OF MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer (accompanied by a communication from McArthur Brothers, contractors for Sections 2 and 4) recommending that the operation of Clause "J," of the contract for said sections be suspended; and the report and communication were read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report and communication be ordered printed and referred to the Joint Committee on Engineering and Finance.



The motion prevailed unanimously, and the report and communication were ordered printed and so referred.

The following is

THE REPORT, WITH ACCOMPANYING COMMUNICATION:

"CHICAGO, June 27, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago :*

GENTLEMEN—I submit herewith a letter received from McArthur Brothers asking for a suspension of Clause 'J' so far as it applies to their Contract Sections 2 and 4. The present equipment upon those sections and the rate of progress which is being sustained on each justifies me in asking that their request be granted and I therefore recommend that the operation of Clause 'J' be suspended so far as it effects Sections 2 and 4.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(One (1) enclosure.)

THE COMMUNICATION:

"CHICAGO, June 25, 1894.

*IsHAM Randolph Esq., Chief Engineer, Sanitary District of Chicago:*

DEAR SIR—Under Section 'J' of our contracts with the Sanitary District of Chicago for constructing Contract Sections 2 and 4, our estimates have been reduced ten per cent (10%) on the theory that the portion lying nearest the surface can be more cheaply excavated than that lying near the bottom. This general theory, however, correct as regards dry, untimbered prairie sections, does not seem to us to be applicable to Sections 2 and 4. These sections run through the heavily timbered swamps of the Desplaines Valley, several times crossing the bed of the river. To grub and clear these entire sections for which we have received no payment under the estimate, and build the expensive levees across and through the river, make the upper half of this earth material much more expensive to move than the lower half. The difference in the cost of excavating the lower half is only the cost of raising the material 8 or 10 feet higher, and this is insignificant compared with the cost of grubbing and clearing the upper half, and we feel that the clause in our contract referred to, properly construed,

does not and should not apply to Sections 2 and 4; and aside from this, we feel that the equities demand that this per cent be not retained. We grubbed and cleared and built the levees on Section 3, and opened up that work at great cost, for which we have received no payment, and when it was re-let, the contractor bid a lower price by reason of all this expensive preparatory work being done and the Sanitary District derived the benefit of the lower price. We have a very large investment in this preparatory work on Sections 2, 3 and 4, which will only be returned, if at all, when the work is completed, as there is no specific price for it. We have a very large plant of steam shovels, cars and track, hoisting engines, pumping engines and steam drills, and are daily increasing this plant, and it is a great hardship upon us to have this additional percentage retained, and we respectfully ask that we now be paid the full amount of our estimates, less the 12½ per cent provided for in our contracts.

Very truly yours,

(Signed) MCARTHUR BROS."

PAYMENT FOR "TULLY ESTATE" LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the payment to the Hibernian Banking Association and to Osborne & Lynde, attorneys for the administrators and heirs at law of Thomas Tully, deceased, for certain right of way lands in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands, on the voucher of the Attorney, as provided in the report, and further directing the Clerk to deposit with the Treasurer, to the credit of the District and the Law Department Land Account thereof, Warrant No. 5054, heretofore drawn in favor of Thomas Tully, in payment for said lands, as authorized at the meeting held January 17, 1894, (page 1699 of the Proceedings); and the report was read.

Mr. Eckhart, seconded by Mr. Russell, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay the said Hibernian Banking Association and the said Osborne & Lynde, attorneys for the said administrators and heirs at law of said Thomas Tully, deceased, on the voucher of the Attorney, for the said right of way lands, as provided in the report, and

further that the Clerk be directed to deposit with the Treasurer, to the credit of the District and the Law Department Land Account thereof, said Warrant No. 5054, heretofore drawn in favor of said Thomas Tully, in payment for said lands, as authorized at the meeting held January 17, 1894, (page 1699 of the Proceedings).

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay the said Hibernian Banking Association and the said Osborne & Lynde, attorneys for the said administrators and heirs at law of said Thomas Tully, deceased, on the voucher of the Attorney, for the said right of way lands, as provided in the report, and further, the Clerk directed to deposit with the Treasurer, to the credit of the District and the Law Department Land Account thereof, said Warrant No. 5054, heretofore drawn in favor of said Thomas Tully, in payment for said lands, as authorized at the meeting held January 17, 1894 (page 1699 of the Proceedings).

The following is

#### THE REPORT:

“CHICAGO, June 27, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On January 17, 1894, the Joint Committee on Finance and Engineering reported to your Honorable Body that it had reached an agreement with Thomas Tully for the purchase from him for the sum of twenty-two thousand two hundred and forty-six (\$22,246) dollars of certain land in Section thirty-five (35), Township thirty-nine (39) North, Range thirteen (13), East of the Third Principal Meridian, hereinafter more particularly described.

Said agreement was approved and a warrant drawn for said amount upon the voucher of the Attorney as directed, but Mr. Tully thereafter refused to carry out said agreement. He has since deceased.

The Attorney has caused his administrators and his heirs to be substituted as defendants in the suit pending for the

condemnation of said land, and a verdict and order of judgment thereon were entered in the Circuit Court Tuesday, June 26, 1894, fixing as the just compensation to be paid to the owners and parties interested in said land for the taking of same by petitioner the sum of twenty-five thousand (\$25,000) dollars.

Said order of judgment provides that of said sum, fourteen thousand and fifty-three dollars and sixty-six cents (\$14,053.66) shall be paid to the Hibernian Banking Association, being the amount due on an indebtedness to it from Thomas Tully in his lifetime, secured by trust deed upon said land, and the remainder thereof, to-wit: ten thousand nine hundred and forty-six dollars and thirty-four cents (\$10,946.34) shall be paid to the administrators and heirs-at-law of said Thomas Tully, deceased, or to Osborne & Lynde, attorneys for said administrators and heirs-at-law, and that upon the payment of said respective sums the Sanitary District shall have the right to appropriate and to enter upon and forever use, possess and enjoy for its corporate purposes said land.

Your Committee recommends that Warrant No. 5054, dated January 17, 1894, drawn upon the Treasurer of the Sanitary District of Chicago, for the payment to the order of Thomas Tully of twenty-two thousand two hundred and forty-six (\$22,246) dollars, be deposited by the Clerk with the Treasurer to the credit of the District and the Law Department—Land Account thereof, and that the Clerk of this District be authorized and directed to pay on the vouchers of the Attorney to the Hibernian Banking Association the sum of fourteen thousand and fifty-three dollars and sixty-six cents (\$14,053.66), and to Osborne & Lynde, attorneys for the administrators and heirs-at-law of Thomas Tully, deceased, the sum of ten thousand nine hundred and forty-six dollars and thirty-four cents (\$10,946.34), pursuant to said order of judgment, in full payment for the following described land, to-wit:

That part of the west half (W.  $\frac{1}{2}$ ) of the southeast quarter (S. E.  $\frac{1}{4}$ ) of Section thirty-five (35), Township thirty-nine (39) North, Range thirteen (13), East of the Third Principal Meridian, lying south (S.) of the north (N.) two hundred and sixty-four and six-tenths (264.6) feet thereof, and north (N.) of the right of way of the Atchison, Topeka & Santa Fe Railroad Company in Chicago; said premises lying and being situate in the County of Cook, in the State of Illinois, and containing



nine and forty-three one-hundredths (9.43) acres, more or less.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

W. H. RUSSELL,  
JOHN J. ALTPETER,  
L. E. COOLEY,  
WM. BOLDENWECK,  
THOMAS KELLY,

*Joint Committee on Finance and Engineering."*

RAISING OF GUARD BANK AT BASIN NO. 1, AT JOLIET.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, transmitting, in duplicate, agreement with the Board of Commissioners of the Illinois and Michigan Canal, together with specifications, tracing and map, with reference to the raising and strengthening of the easterly guard bank of the Illinois and Michigan Canal at Basin No. 1 at Joliet; and the report, agreement and specifications were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report, with accompanying agreement and specifications, be adopted, ordered printed and, with accompanying tracing and map, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreement with the Commissioners of the Illinois and Michigan Canal, on behalf of the District, as provided in the report.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—Mr. Altpeter—one (1).

Upon which result the President declared the motion carried, the report, with accompanying agreement and specifications, adopted, ordered printed, and with accompanying tracing and map, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreement with the Commissioners of the Illinois and Michigan Canal, on behalf of the District, as provided in the report.

The following is

THE REPORT, WITH ACCOMPANYING AGREEMENT AND SPECIFICATIONS:

"CHICAGO, June 20, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—At various times since January last the Engineering Department and its Committee have had under advisement certain works at Basin No. 1 at Joliet. A project for the work required has been matured and a method of procedure determined after repeated conferences between the officers and members of this Board and of the Board of Canal Commissioners, and your Committee herewith submits the results of its labors, in the expectation that the work, if authorized, will be completed as speedily as possible.

It appears that the easterly guard bank of the upper basin at Joliet is not in a safe condition against maximum floods, such as occurred twice in 1892, and should be repaired and strengthened. It also appears that the dam was seriously damaged in 1892, and that it suffered further injury in 1893 and 1894, and that the repairs on the same have been only such as were absolutely necessary to maintain navigation, pending the time when the Sanitary District should determine its plans in and through Joliet, and enter upon construction.

It cannot be seriously contended that the operations of the Sanitary District in the control of flood waters have as yet materially increased flood heights at Joliet, though the duration of moderate floods has doubtless been lengthened. This is, however, immaterial, as works contemplated at an early day will change flood conditions and make necessary additional work at the upper basin, and these works should be constructed this season.

The Chief Engineer and the Engineer for the Canal Board have agreed upon the nature and extent of the work required to raise and strengthen the guard bank. The work proposed commends itself to the judgment of the Committee, and an agreement has been substantially reached with the Canal Commissioners, on the theory that they are the proper parties to do the work, and that the District should pay the cost of the same, as a measure of the prospective damages on account of the operations of the District. The Committee can also commend the work for the further reason that it is likely to be available in large part in its



permanent plans for the treatment of the river in the City of Joliet

We accordingly transmit herewith a form of agreement for the work on the easterly embankment of the Canal and Upper Basin, from Lock No. 4 to Dam No. 1, accompanied by the specifications for the work prepared by the Chief Engineer. We recommend that the same be approved, and that the President and Clerk be authorized and directed to execute said agreement on behalf of the District.

The question of the repair of Dam No. 1 is reserved for further consideration, and whatever conclusion shall be reached will be reported in season for practical work of construction during the autumn months.

Very respectfully submitted,

Signed) L. E. COOLEY,  
Chairman.  
B. A. ECKHART,  
W. H. RUSSELL,  
THOMAS KELLY,  
WM. BOLDENWECK,

*Joint Committee on Finance and Engineering."*

(Accompanied by agreement, specifications, tracing and map.)

#### AGREEMENT :

"*This agreement made this twenty-first day of June, A. D. 1894, by and between the Sanitary District of Chicago, party of the first part, and the Canal Commissioners of the Illinois and Michigan Canal, party of the second part, witnesseth: That,*

WHEREAS. The diversion of the course of the Desplaines River in certain portions thereof, the straightening of the channel of said river and the building of a levee on the easterly side thereof from the vicinity of Summit to Lockport, Illinois, together with the works collateral thereto may send an increased volume of water down the Desplaines Valley to and through the locks and dams in Joliet connected with the said Illinois and Michigan Canal; and,

WHEREAS, Such increased volume of water may require the strengthening and protection of the banks of said Canal from Lock No. 4 to Hyde's Mill at the upper dam by increasing the height of said banks and the building of dry rubble

and cement walls, and the necessity, if any, of such strengthening and protection will result from said increased volume of water occasioned as aforesaid;

*Now therefore,* In consideration of the premises and of the reciprocal promises herein made, the parties hereto covenant and agree as follows:

*First*—Should second party decide that the banks of said Canal require strengthening and protection from Lock No. 4 to Hyde's Mill at the upper dam, and shall at their own cost and expense do all the necessary work connected therewith, first party agrees to pay to second party for the respective classes of work so done by them the following rates, to-wit:

For all earth and riprap placed on said banks one and fifteen one-hundredths (\$1.15-100) dollars per cubic yard.

For all brick laid in hydraulic cement mortar, fifteen (\$15) dollars per thousand.

For all stone laid in hydraulic cement, fifteen (\$15) dollars per cord of one hundred (100) cubic feet.

For all dry rubble wall, twelve (\$12) dollars per cord of one hundred (100) cubic feet.

Said rates of compensation include compensation for the removal of such waste rock, cinders and other material as may be necessary, and the preparation of the surface for the work herein provided for. And it is especially agreed that in no event shall the aggregate amount to be paid for the work herein prescribed exceed the sum of \$20,606.89.

*Second*—Whereas, the work executed is likely to form part of the construction of first party by which the waters from its main channel will be conducted through the City of Joliet and the integrity of the canal preserved; therefore, it is agreed that whatever work is done by second party in and about the protecting and strengthening of the banks of said Canal shall be done under the supervision of the Chief Engineer of first party, who shall have the control and direction, as to the character of the work and quality of the materials furnished, of so much of said work as second party shall expect to be compensated for as above specified, and to that end second party agrees to notify first party of its intention to enter upon the execution of any of said work, and agrees that the laborers, mechanics and men employed by them shall be subject to the supervision and direction of the Chief Engineer of first party as to the character of the work

done, and first party shall have the right, through its Chief Engineer and his assistants, to inspect all material furnished for said work and shall have full power and authority to reject any of same if it is not, in his opinion, of the required quality.

*Third*—And for the reasons stated in the preceding paragraph it is agreed that first party has at the request of second party furnished the plans, drawings and specifications for said work hereto attached and marked Exhibits A and B, which in the opinion of second party will form a sufficient protection and strengthening of said bank to preserve same against any contingencies which are likely to arise from the present condition of the works of first party in said Desplaines Valley or from any conditions thereof likely to exist in the immediate future, and it is agreed that if second party shall decide to protect and strengthen that portion of the canal bank above specified the work shall be carried on and executed in strict accordance with said specifications.

*Fourth*—It is further agreed that upon the notification by second party to first party of its intention to proceed to protect and strengthen said bank, then, thereupon, this agreement shall go into effect and the terms and provisions thereof be binding upon the parties hereto, and shall control the character of said work and the quality of the materials furnished, and that said specifications shall be a part of this agreement.

*In witness whereof*, The parties hereto have caused these presents to be signed by their respective officers, thereunto duly authorized, on the day and year first hereinbefore set forth," etc.

#### "SPECIFICATIONS

For raising the top of the left bank of the Desplaines River and Illinois and Michigan Canal, from Lock No. 4 in the Canal to Hyde's flour mill, just above Dam No. 1.

The work shall consist of furnishing, delivering and placing all the necessary material, of furnishing all tools and appliances needed for prosecuting the work and of removing from the site and vicinity of the work all things there delivered which are not to form a part of the finished work and of executing and finishing complete the work herein specified. The compensation provided herein, shall be in full payment for the whole work complete in all particulars to the

satisfaction of the Chief Engineer of the Sanitary District.

The work will comprise two general divisions, viz:

1. Raising the river and canal bank with earth.

2. Raising the masonry work at the head gates of the "Paper Mills," just above Dam No. 1.

1. *Raising the river and canal bank with earth*—This division of the work shall consist of two parts, viz:

First—The removal from the top of the bank of all vegetable matter or material and loose rock which covers the area in which the earth embankment is to be placed. The material thus removed may be deposited on the rear slope of the bank.

Second—The furnishing, delivery, placing and packing of earth suitable for a water tight embankment, which shall be distributed on the top of the river and canal bank in such manner as to raise said banks to an elevation of 35 feet below Chicago datum at the Hyde Flour mill, to an elevation of 34 feet below Chicago datum at Lock No. 4, and to elevations at intermediate points which shall be determined by a uniform grade from one end of the work to the other. The top width of the finished banks at the grades mentioned shall no where be less than ten (10) feet, with side slopes of  $1\frac{1}{2}$  horizontal to 1 vertical, and the toe of the slope toward the river shall not be closer to the edge of the existing bank than two feet. Provided, that where the pile of flux stone is located at the Illinois Steel Works, the width of the finished bank at its top shall be limited by the stone pile, and along the front and ends of the stone pile shall have a height of one (1) foot above the grade above specified. The height of finished embankment shall have an elevation above the grades above mentioned which shall be sufficient for future shrinkage, the amount of which shall be estimated at ten (10) per cent of the height of made bank. In making the bank the material shall be well compacted either by sufficient teaming thereon or by ramming when teaming is not practicable, the result to be a thoroughly water tight bank. At all places at which the removal of the covering of the existing bank discloses soft or weak spots in said bank, at these places the existing bank shall be put in water tight condition throughout its whole width. Immediately above Hyde's Flour Mill the ex-



isting bank is, at high stages of the river, traversed by more or less water. These places shall be discovered and the bank made tight. The finished work shall be graded up level and smooth to the dimensions specified.

2. *Raising the masonry at the head gates of the Paper Mill*—Commencing on the river retaining wall at points twenty (20) feet each side of the head gates opening, the masonry between said points forming the sides, approaches and supports of the head gates, shall be raised with good and suitable stone laid in hydraulic cement mortar to an elevation of 36.5 feet below Chicago datum, and with the result that the bank and head gates shall be water tight to this elevation. The thickness of the masonry at right angles to the direction in which water tends to flow out from the river shall be nowhere less than two (2) feet.

The accompanying plans show the site of the work and constitute an accurate contour survey thereof in its existing condition."

(Accompanied by tracing and map.)

#### APPROVAL OF REQUISITIONS NOS. 507 AND 508.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, accompanied by Requisitions No. 507 and 508, for the Engineering Department, presented and referred to that Committee at the meeting held June 20, 1894 (page 1995 of the Proceedings), and recommending the approval of the same; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying requisitions allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying requisitions allowed.

The following is

#### THE REPORT:

"CHICAGO, June 27, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—In regard to Requisitions

Nos. 507 and 508 for sundry supplies for the Engineering Department, presented to the Board and referred to the Joint Committee on Engineering and Finance at the meeting held June 20, 1894, (page 1995 of the Proceedings) your Committee returns said requisitions herewith, and recommends that the same be allowed.

The Committee would suggest that the Engineering Department should give special attention to the care of property, to the end that a rigid accounting should be had of all property purchased for the use of the Engineering Department. No special action in the premises seems necessary on the part of the Board.

Respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.

B. A. ECKHART,  
W. H. RUSSELL,  
THOMAS KELLY,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,

Joint Committee on Engineering and Finance."

(Accompanied by two (2) requisitions.)

#### INVESTIGATION OF HARD MATERIAL ON SECTIONS C, D, E AND F.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, accompanied by a report from the Chief Engineer to that Committee, with reference to an investigation of the hard material encountered in excavation on Sections C, D, E and F, and recommending that expenditures with reference to the same be authorized as requested in the report, and also that the Chief Engineer be authorized to make any surveys and investigations required by the Committee with reference to railway and bridge changes; and the report and enclosure were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted and, with enclosure, ordered printed and placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, and, with enclosure, ordered printed and placed on file, and the re-



commendations made in the report concurred in.

The following is

THE REPORT, WITH ENCLOSURE;

"CHICAGO, June 27, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance have had under advisement the question of hard material encountered in excavation on Sections C, D, E and F, referred to it by the Board.

At the request of the Committee, the Chief Engineer has made certain investigations, as mentioned in his communication which is submitted herewith, and the Committee recommend that the expenditures made be authorized as therein requested.

The Committee has taken under consideration various questions in regard to railway and bridge changes, and it is recommended that the Chief Engineer be authorized and instructed to make any surveys and investigations required in the premises.

Very respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

B. A. ECKHART,

W. H. RUSSELL,

WM. BOLDENWECK,

THOMAS KELLY,

JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure.)

(Enclosure.)

"CHICAGO, June 25, 1894.

*To the Committee on Engineering and Finance:*

GENTLEMEN—Acting under your instructions I have made investigations upon Sections E and F for the purpose of determining, as nearly as may be, the character of the material to be encountered in excavating those sections, and I have paid out for labor and superintendence alone \$1,919.91, besides other amounts for materials, etc. This expenditure, coupled with other demands upon my emergency fund, has depleted that fund to such an extent that I ask you to authorize a reimbursing voucher

at once to the amount of the pay-rolls, so that it may be passed at Wednesday's session of the Board.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,

*Chief Engineer."*

ADJOURNMENT TO SPECIAL TIME.

Mr. Kelly, seconded by Mr. Cooley, moved that when the Board adjourn, it do adjourn to meet Saturday, June 30, 1894, at 10:30 o'clock A. M.

The motion prevailed unanimously, and it was so ordered.

OFFICES TO BE CLOSED JULY 4, 1894.

Mr. Russell presented an order, directing that the offices of the District be closed on Wednesday, July 4, 1894; and the order was read.

Mr. Russell, seconded by Mr. Altpeter, moved the adoption of the order.

The motion prevailed unanimously, and the President declared the order adopted, and the offices of the District ordered closed on Wednesday, July 4, 1894.

The following is

THE ORDER:

"*Ordered*, That the offices of the Sanitary District of Chicago be and the same are hereby ordered closed on Wednesday, July 4, 1894, the same being a National Holiday."

PAYMENT OF JULY INTEREST ON BONDS.

Mr. Eckhart, Chairman of the Committee on Finance, presented an order authorizing and directing the Clerk to draw a warrant on the Treasurer, payable to the order of the Treasurer, in the sum of seventy-five thousand (\$75,000) dollars, to be used in the payment of the July, 1894, interest on District bonds—second issue; and the order was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk authorized and directed to draw a warrant on the Treasurer, payable to the order of the Treasurer, in the sum of seventy-five thousand

(\$75,000) dollars, to be used in the payment of the July, 1894, interest on District bonds—second issue.

The following is

#### THE ORDER:

“*Ordered*, That the Clerk of this District be and he is hereby authorized and directed to draw a warrant upon the Treasurer, payable to the order of Melville E. Stone, Treasurer, in the sum of seventy-five thousand (\$75,000) dollars, and deliver the same to said Treasurer said sum to be used by said Treasurer, in paying the semi-annual interest due July 1, 1894, on the bonds of this District—second issue.”

#### LOCATION OF DISTRICT BUILDINGS LEASED ON SECTION A.

The Clerk presented a communication from Messrs. Heldmaier & Neu, contractors for Sections A and B, requesting that the rent of the District buildings on Section A, under lease, be reduced for the reason set forth in the communication; and the communication was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the communication be ordered printed and referred to the Committee on Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

#### THE COMMUNICATION:

“*Mt. Forest, Ill.*, June 21, 1894.

*The Sanitary District of Chicago, Rialto Building, Chicago, Ill.:*

GENTLEMEN—We have been notified by the Board of Commissioners of the Illinois & Michigan Canal that the land on which our buildings stand here belongs to them, and that they have fixed the annual rental at \$75.00, which we expect you will please deduct from the rental of \$240.00 that we pay you.

Very respectfully,

(Signed) HELDMAIER & NEU,  
Per C. S. P.”

#### ADJOURNMENT.

On motion of Mr. Cooley, seconded by Mr. Boldenweck, the Board then adjourned to meet on Saturday, June 30, 1894, at 10:30 A. M., pursuant to motion.

THOS. F. JUDGE,  
Clerk.

#### ADJOURNED MEETING.

The adjourned session of the two hundred and twenty-eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Saturday, June 30, 1894, at 10:30 o'clock A. M., pursuant to motion.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7) members, were present.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (June, 1894).....	\$ 500 00	
Eng. Dept., Div. No. 1, (June, 1894).....	7,760 10	
Eng. Dept., Div. No. 1, Tow-path, (June, 1894).....	426 50	
Eng. Dept., Div. No. 2, (June, 1894).....	2,142 40	
Eng. Dept., Div. No. 2, special survey, (June, 1894).....	97 02	
Eng. Dept., Div. No. 3, (June, 1894).....	1,953 00	
Eng. Dept., Div. No. 4, (June, 1894).....	340 00	
	<hr/>	\$13,219 02
Clerical Dept., Clerk's roll, (June, 1894).....	891 66	
Law Dept., Attorney's roll, (June, 1894).....	\$ 1,286 67	
Law Dept., Joliet roll, (June, 1894).....	458 34	
	<hr/>	1,745 01
Treasury Dept., Treasurer's roll, (June, 1894).....	166 67	
General Account, Sanitary Inspector's roll, (June, 1894).....	\$ 200 00	
General Account, Trustees' roll, (June, 1894).....	2,333 33	
	<hr/>	2,533 33
Police Dept., Field roll, (June, 1894).....	3,721 65	
Total.....		\$22,277 34

#### LAW DEPARTMENT.

John P. Wilson (legal services, April-June, 1894).....	\$ 1,250 00	
Jos. Donnersberger (expert, right of way services, June, 1894).....	300 00	
	<hr/>	\$1,550 00

## ENGINEERING DEPARTMENT.

Isham Randolph (pay roll, test pits, Secs. E and F).....	\$1,919 91
Grand total.....	<u>\$25,747 25</u>

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried and the vouchers, as read and shown above, approved and ordered paid.

## PURCHASE OF "HAWLEY" LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from Warren Hawley of certain right of way lands in Will County, and authorizing and directing the Clerk to pay for the said right of way lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Warren Hawley, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Warren Hawley, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

The following is

## THE REPORT:

“CHICAGO, June 30, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Joint Committee on

Finance and Engineering have reached an agreement with Warren Hawley for the purchase from him for the corporate purposes of this District of the land hereinafter described for the sum of four thousand three hundred and sixty-six dollars and twenty-five cents (\$4,366.25).

Your Committee therefore recommend that the Clerk of this District be authorized and directed to pay, on the voucher of the Attorney, to said Warren Hawley the sum of four thousand three hundred and sixty-six dollars and twenty-five cents (\$4,366.25) in full payment for the following described premises, to-wit:

That part of the north (N.) eight hundred and twenty-seven and twenty-six one-hundredths (827.26) feet of the southwest quarter (S. W.  $\frac{1}{4}$ ) of Section twenty-seven (27), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, lying west (W.) of the center thread of the Desplaines River with the riparian rights thereof.

Also, that part of the north (N.) eight hundred and twenty-seven and twenty-six one-hundredths (827.26) feet of the southeast quarter (S. E.  $\frac{1}{4}$ ) of Section twenty-eight (28), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, lying east (E.) of the highway known as “Chicago Road.”

All of said above described premises lying and being situate in the County of Will in the State of Illinois.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*

L. E. COOLEY,  
THOMAS KELLY,  
WM. BOLDENWECK,  
W. H. RUSSELL,  
JOHN J. ALTPETER,

*Joint Committee on Finance and Engineering.”*

## ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.”*



June 30,]

—2033—

[1894.







## PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

## SANITARY DISTRICT OF CHICAGO.

---

JULY 4 AND 11, 1894.

---

## OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

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## REGULAR MEETING.

The two hundred and twenty-ninth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, July 4, 1894, at 1:30 o'clock P. M.

On roll-call there were no members of the Board present.

At 2 o'clock P. M., there being still no quorum, in pursuance of the rules, the Board stood adjourned.

THOS. F. JUDGE,

Clerk.

## REGULAR MEETING.

The two hundred and thirtieth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, July 11, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Eckhart, Kelly, Russell and Wenter—six (6), and subsequently Messrs. Cooley and Gilmore, making a total of eight (8) members, were present.

## MINUTES.

The minutes of the regular meeting held June 27, 1894, and of the adjourned session of the same regular meeting, held June 30, 1894, were approved as printed, on motion of Mr. Eckhart, seconded by Mr. Boldenweck.

# OPENING OF BIDS FOR \$3,000,000 BONDS— THIRD ISSUE.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the bids received up to noon, July 11, 1894, in pursuance of the advertisement dated June 10, 1894, inviting bids for the purchase of the issue of \$3,000,000 of 4 per cent bonds of the District (third issue), be now opened and considered by the Board of Trustees.

The motion prevailed unanimously, and it was so ordered.

The Clerk then presented and opened the two bids received for the said issue of bonds, as shown in the following

## SUMMARY OF BIDDERS:

No.	Name.	Location.	Checks Deposited.
1	James Swan.....	Chicago..	\$ 750 00
2	Illinois Trust and Savings Bank. ....	Chicago..	90,000 00

## SCHEDULE OF BIDS

FOR \$3,000,000 BONDS, OPENED JULY 11, 1894.

No.	Bidders.	Amount bid for.	
		\$25,000	\$3,000,000
1	James Swan.....	\$125 premium or 100½	
2	Illinois Trust and Savings Bank.....		\$180,000 discount or .94—if made payable in gold.

(1)

“CHICAGO, July 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I offer par and one-half (100½) for twenty-five thousand (\$25,000) dollars of Sanitary District 4% Bonds, issued under advertisement of June 10, 1894.

(Signed) JAS. SWAN.”

(2)

“ILLINOIS TRUST AND SAVINGS BANK, }  
BOND DEPARTMENT,  
“CHICAGO, July 11, 1894. }

*Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—For the \$3,000,000 4% legally issued Bonds of the Sanitary Dis-

trict of Chicago, maturing \$150,000 July 1st, 1895, and \$150,000 each year thereafter, we will pay par and accrued interest, less a commission of one hundred eighty thousand (\$180,000) dollars, provided said Bonds are made payable in Gold Coin, and satisfactory arrangements can be made with the “Board of Trustees” for the delivery of said Bonds. The usual papers evidencing the legality of the issue to be furnished us prior to payment. Our Cashier’s check No. 60481 for \$90,000 enclosed as a guaranty of the good faith of our bid.

Respectfully submitted,

(Signed) B. M. CHATTELL,  
A. C.”

# BIDS FOR \$3,000,000 BONDS—THIRD ISSUE— REJECTED.

Mr. Eckhart, seconded by Mr. Russell, moved that the bids for the third issue of District bonds—\$3,000,000—as read and shown above, be rejected, and that the Clerk be authorized and directed to immediately return to the bidders the checks deposited with said bids.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Excused and not voting—Mr. Altpeter—one (1). Nays—None.

Upon which result the President declared the motion carried, the bids for the third issue of District bonds—\$3,000,000—as read and shown above, rejected, and the Clerk authorized and directed to immediately return to the bidders the checks deposited with said bids.

## VOUCHERS.

The Clerk presented the following vouchers:

## ENGINEERING DEPARTMENT.

### Construction Account—

McArthur Bros. (Sec. 2, June 30, 1894).....	\$ 7,799 31
Gilman & Co. (Sec. 3, June 30, 1894).....	5,490 84
McArthur Bros. (Sec. 4, June 30, 1894).....	14,993 39
The Qualey Construction Co., (Sec. 5, July 1, 1894).....	6,090 43
Mason, Hoge & Co., (Sec. 6, July 1, 1894).....	6,189 75
Mason, Hoge & Co., (Sec. 7, July 1, 1894).....	12,113 94
Mason, Hoge, King & Co. (Sec. 8, July 1, 1894).....	29,563 63
Halvorson, Richards & Co. (Sec. 9, July 1, 1894).....	19,448 97

E. D. Smith & Co. (Sec. 10, July 1, 1894).....	\$24,150 00
Mason, Hoge & Co. (Sec. 11, June 30, 1894).....	12,897 94
Mason, Hoge & Co., (Sec. 12, June 30, 1894).....	10,401 57
Mason, Hoge & Co., (Sec. 13, June 30, 1894).....	17,528 88
Smith & Eastman (Sec. 14, June 30, 1894).....	9,842 88
Heldmaier & Neu (Sec. B, June 30, 1894).....	20,173 86
Western Dredging & Improvement Co. (Sec. C, July 2, 1894).....	11,026 03
E. D. Smith & Co. (Sec. D, July 2, 1894).....	15,151 07
Ricker, Lee & Co. (Sec. F, July 2, 1894).....	5,300 67
Gahan & Byrne (Sec. G, July 2, 1894).....	19,399 35
Christie & Lowe (Sec. I, July 1, 1894).....	16,815 31
Christie & Lowe (Sec. K, July 1, 1894).....	9,312 19
The Heidenreich Co. (Sec. L, July 1, 1894).....	6,345 12
The Heidenreich Co. (Sec. M, July 1, 1894).....	4,169 66
McMahon & Montgomery Co. et al. (Sec. O, July 1, 1894).....	10,131 98
Heldmaier & Neu (Sec. 1, extra work, Canal levee, between Stations 733 and 740, May 18, 1894, <i>final</i> ).....	241 57
The Qualey Construction Co. (Sec. 5, spoil removed from existing banks, July 1, 1894).....	1,701 00
Heldmaier & Neu (Sec. A, extra work, completing levee, 692 to 710, June 30, 1894).....	2,592 00
Western Dredging and Improvement Co. (Sec. C, extra work, building sand excavated, July 2, 1894).....	248 88
Western Dredging and Improvement Co. (Sec. C, extra work, raising Canal banks, May 15, 1894, <i>final</i> ).....	411 59
	<hr/> \$299,531 81

## ENGINEERING DEPARTMENT.

R. R. Donnelly & Sons Co. (maps).....	25 00
F. Mayer & Co., (blue prints).....	49 32
Chicago Blue Print Paper Co., (paper)...	4 76
The Tobey Furniture Co., (table).....	13 00
The Soper Lumber Co. (stakes).....	17 50
Seelig & Kandler, (repairing instruments, etc.).....	20 65
Alex. G. Hug, (repairing typewriter).....	1 00

Henry Gebhardt, (vault fittings).....	\$ 24 00
Geo. B. Mattis, (vault fittings).....	11 00
W. C. Ritchie & Co., (paper tubes).....	1 50
J. M. Abbitt, (coal and oil).....	3 19
John Larney, (coal)...	3 50
Wm. Kirkman, (gauge reading).....	10 00
Patrick McGinnis, (gauge reading).....	10 00
Geo. Brainard, (gauge reading).....	10 00
E. Hastings, (gauge reading).....	10 00
Mary Rusk, (gauge reading).....	10 00
John McCaffery (rent, Brighton Park, June, 1894).....	25 00
John T. Allison (rent, Summit, June, 1894).....	20 00
J. M. Abbitt (rent, Willow Springs, June, 1894).....	20 00
H. S. Norton (rent, Lemont, June, 1894).....	18 00
O. W. Moon (rent, Lockport, June, 1894).....	20 00
Chicago Towel Supply Co. (towel).....	5 40
The Rialto, (ice).....	9 00
Waukesha Hygeia Mineral Springs Co. (water).....	7 50
Rand, McNally & Co. (maps).....	10 50
J. H. Spengler (expense).....	7 10
Isham Randolph (traveling).....	83 00
Thos. T. Johnston (traveling).....	9 35
Alex. E. Kastl (traveling).....	9 40
Alex. E. Kastl (traveling).....	23 66
E. R. Shnable (traveling).....	9 30
E. R. Shnable (traveling).....	9 40
H. B. Alexander (traveling).....	11 29
Chas. L. Harrison (traveling).....	10 55
W. T. Keating (traveling).....	22 15
F. G. Ewald (traveling).....	24 41
Robert H. Cowdrey (traveling).....	27 49
	<hr/> \$606 92

## CLERICAL DEPARTMENT.

Wyckoff, Seamans & Benedict (paper)....	\$ 3 00
Warner's Towel Supply (towel).....	1 50
The Rialto, (ice).....	3 00
	<hr/> \$ 7 50



## LAW DEPARTMENT.

Jacobs, Coles & Co. (eyelets).....	\$ 1 80	
Chicago Daily Law Bulletin, (subscription) .....	3 00	
H. Schultz & Co. (paper boxes).....	14 00	
The Rialto, (ice).....	3 00	
Warner's Towel Supply (toweling).....	1 50	
Orrin N. Carter, (expense).....	24 30	
Orrin N. Carter, (expense).....	175 00	
	<hr/>	\$ 222 60

## GENERAL ACCOUNT.

Thos. F. Judge (payroll and sundry expense).....	\$ 127 00	
John F. Higgins, (printing proceedings, etc., June, 1894)	153 64	
	<hr/>	\$ 280 64
Grand total.....		\$300,649 47

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the weeks ending June 30, and July 7, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, July 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employees in each department for the weeks ending June

30 and July 7, 1894, as the same have been reported to me:

*Week ending June 30, 1894.*

Engineering Department.....	129
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	46
Total employees.....	<hr/> 188

*Week ending July 7, 1894.*

Engineering Department (no report)	
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	47
Total employees ...	<hr/> 60

Up to this writing, no report has been received from the Engineering Department as to the force employed therein for the week ending July 7, 1894.

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

## MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of June, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, June 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to herewith report that the total amount expended on account of and charged to the Clerical Department during the month of June, 1894, was \$1,791.57, divided as follows:

Salaries.....	\$ 1,783 23
General expenses.....	8 25
Total.....	<hr/> \$ 1,791 57

There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$50. The excess over the estimate for June was due to the payment of the June payroll before the close of the month.

The total amount expended and charged to the General Account, during the month of June, 1894, was \$6,043.93, divided as follows:

Salaries.....	\$5,068 66
Printing and Stationery.....	214 87
Rent.....	703 33
General expenses.....	59 07
Total.....	<u>\$6,043 93</u>

There are no outstanding liabilities against the General Account, and the expenses for the present month will be about \$1,000. The excess over the estimate for June was due to the payment of the June pay-rolls before the close of the month, and the payment of one month's rent of offices to close the old lease.

During the month of June, 1894, there were warrants authorized and drawn against the various accounts as follows:

Engineering Department.....	\$ 29,279 09
Clerical Department.....	1,791 57
Law Department.....	7,584 62
Treasury Department.....	333 34
General Account.....	6,043 93
Engineering Department (Construction Account).....	428,308 61
Law Department (Land Account).....	53,634 10
Bond Interest and Premium Account.....	75,000 00
Police Department.....	8,122 95
Total.....	<u>\$610,098 21</u>

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
*Clerk."*

#### REPORT ON NEW HOSPITAL SERVICE ON MAIN CHANNEL.

The Clerk presented a joint report from the President and Clerk, with reference to and accompanied by nine (9) letters received from contractors on the Main Channel in response to a communication concerning new and improved hospital service along the line, issued under the recommendations of report of the Committee on Health and Public Order presented at the meeting held May 23, 1894, (page 1968 of the Proceedings).

The report was read, and, by unanimous consent, was ordered printed and with enclosures, placed on file.

The following is

#### THE REPORT:

"CHICAGO, July 11, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In conformity with the report of the Committee on Health and Public order, presented to and adopted by your Honorable Body at the meeting held May 23, 1894 (page 1968 of the Proceedings), with reference to new and improved Hospital service on the Main Channel, the substance of said report, together with copy of contract transmitted with same, was duly presented to several contractors on the Main Channel of the District, and all replies received are transmitted herewith for filing, as follows:

Hayes Bros., contractors for Section N.

The Heidenreich Co., contractors for Sections L and M.

Christie & Lowe, contractors for Sections I and K.

Gahan & Byrne, contractors for Sections G and H.

Streeter & Kenefick, contractors for Section E.

McArthur Bros., contractors for Sections 2 and 4.

Gilman & Co., contractors for Section 3.

Halverson, Richards & Co., contractors for Section 9.

E. D. Smith & Co., contractors for Section 10 and D.

Respectfully submitted,

(Signed) FRANK WENTER,  
*President*  
THOS. F. JUDGE,  
*Clerk."*

(9 enclosures.)

#### SUSPENSION OF CLAUSE "J" OF CONTRACT FOR SECTION 3 OF MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer, with reference to and accompanied by a communication from Gilman & Co., contractors for Section 3, asking the suspension of Clause "J" of their contract for said section; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be ordered printed, and with accompanying communication, referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously,

and the report was ordered printed, and, with accompanying communication, so referred.

The following is

THE REPORT, WITH ENCLOSURE;

"CHICAGO, July 6, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I hand you herewith a letter received from Gilman & Co. asking for a suspension of Clause "J" as it affects Section No. 3. These contractors have several times asked this accommodation, but until now I could not see my way to recommend it. They now have an equipment upon the section which is a guaranty of good faith and ability to complete the work; and I must, in justice to them, state that while they have been hindered for several months by reason of the delay of equipment for which they had contracted, yet they have been unremitting in their efforts to make progress and have moved by hard labor difficult material in large volume, at a cost which must have been largely in excess of the price which they received from it; thereby proving their earnest purpose to carry out their contract.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(One (1) enclosure.)

(Enclosure)

"WILLOW SPRINGS, ILL., June 30th, 1894.

*Mr. Isham Randolph, Chief Engineer, Sanitary District of Chicago:*

DEAR SIR—Our estimate of June 16th shows a total excavation of glacial drift of 163,600 cubic yards, from which 10-500 cubic yards was deducted under the provisions of Clause "J" of our contract. Considering the following facts and the peculiar way in which the rock on Section 3 lays, making Clause "J" operate particularly hard in our case, we would respectfully ask that that clause in our contract be suspended, as its enforcement at the present time, when we are being put to such heavy expense for machinery is working a considerable hardship on us.

From Station 850 to 878+50 we have practically stripped to rock, and from there to Station 900, all, with the exception of about 25,000 cubic yards, which was wasted on the south side was taken from the surface at considerable extra

expense last winter to strengthen the levee, or down to rock with the steam shovel.

For several months we have done no surface work, all excavation being down to rock. We now have a steam shovel and one cableway on glacial drift, both stripping to rock.

As evidence of our good faith in the execution of our contract in the required time, we now have on Section 3 four Lidgerwood cableways, two in operation and other two will be within a week, one 18 x30 Rand Compressor, one steam shovel, five channelers and three more coming within two weeks, one double drum incline, steam pumps, air drills, cars, etc.

As to the effect of Clause "J" in the rock work, we would say that all our cableways have been erected in the middle of the section, that we are now breaking down there and propose to complete the channel as we go each way from the center.

Yours respectfully,

(Signed) GILMAN & Co.  
E. B. McNEILL, Sec."

#### MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department, accompanied by semi-annual property return, for the month of June, 1894.

The same was read, and, by unanimous consent, was ordered printed and, with accompanying property return, placed on file.

The following is

THE REPORT:

"CHICAGO, July 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith the monthly report for June, 1894. The total amount paid out by this Department during the month is as follows:

#### Salaries.

Attorneys .....	\$2,600 01
Office force.....	640 00
Right of way.....	250 00
	<hr/> \$3,490 01

#### General Expenses.

Court costs.....	\$487 20
Right of way.....	1,070 78
Expense account.....	72 13



Legal services.....	2,450 00	
Sundries.....	14 50	
		\$4,094 61

*Land Account.*

Right of way (for which deeds have passed).....	\$39,894 85	
Abstracts, Cook County.....	6,580 00	
Taxes, Will County..	369 98	
Taxes, Du Page County.....	1 77	
		\$46,846 60
Total.....		\$54,431 22

The increased amount of salaries shown on this report is accounted for because the pay-rolls for both May and June were paid in June.

The suit to condemn the Burke land near Summit, tried in January and February, 1893, appealed to the Supreme Court by the Burkes and argued last March before that court, was decided in favor of the District on June 19th. This decision of the Supreme Court is of great value to the District. Burkes' attorneys contended that the plans and maps presented by the District on the trial in the lower court were not sufficient and that more complete and definite plans should have been filed showing the use to be made of the land sought to be taken, claiming that if the proper plans and maps had been filed it would have been seen that the District was taking more land than was necessary. It was also insisted that the Burkes had a right to show as affecting the market value of their land, the practicability of the land being protected and improved by the erection of dikes sufficient to prevent overflow from the Desplaines River, the cost of erecting such dikes and the market value of the land when so protected. The Supreme Court on all of these points decided in favor of the District and among other things stated that the Burkes had no legal right to improve their land by erecting dikes in such a manner as to flood the land of others, and that this being the case, it was not proper to show what such lands would be worth after they were improved by dikes.

A contract has been prepared by this Department during the month providing for the raising of the Illinois and Michigan Canal near the upper basin at Joliet; a contract has also been drawn up providing for a telephone service for the District along the line of its work; a

considerable time has also been given to the study of legal questions relative to the carrying of concealed weapons within the police limits of the Sanitary District. Attention has been devoted to the preparation and printing of the contract for the work on Section fifteen (15) near Lockport.

During the month negotiations have been carried on for the land lying between Lockport and Joliet, and attention has been given to the preparation of the condemnation suits for obtaining such lands as could not be purchased. It is hoped that all this land which cannot be obtained by purchase will be ready for trial during the month of September.

The settlement for the Tully land has been closed and it is now in the possession of the District. Practically all the lands needed for right of way between Summit and Bridgeport which the District has not already obtained are a few pieces located near Western avenue, and there is a fair prospect of settlement being made for nearly all of this. If a judge can be obtained to hear the case, eighteen lots in the Manchester Subdivision at this point will be tried some time within the next few days.

The suit by Alfred Harlev against the District with reference to his claims in Contract Section one (1) has been appealed by him to the Appellate Court and arguments are to be heard in the Court on the seventeenth of this month. This Department is now engaged in preparing the brief and argument in this suit to be filed in that court.

During the present month the Department will give much time to right of way matters between Lockport and Joliet in Will County and near Western avenue in this County.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
*Attorney."*

(Accompanied by property return.)

PAYMENT OF TAXES ON "TULLY ESTATE"  
LAND.

The Clerk presented a report from the Attorney, with reference to and accompanied by a voucher for \$389.51, drawn in favor of the Attorney, for taxes paid by him on the Tully estate land, and requesting the approval and order for payment of said voucher; and the report was read.

Mr. Eckhart, seconded by Mr. Russell,

moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying voucher approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying voucher approved and ordered paid.

The following is

#### THE REPORT:

“CHICAGO, July 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith enclose land voucher for \$399.51 for the taxes on the Tully land which was ordered purchased in the report of the Joint Committee on Finance and Engineering, approved by the Board on June 27, 1894. The agreement between the Committee and the Tully estate was that the Board should pay these taxes as part of the settlement, but this fact was omitted in the report of the Committee on June 27, 1894. In order to save the added interest which would accrue by allowing the taxes to remain unpaid until July, on consultation with the Finance Committee, it was thought advisable that I pay these taxes out of the emergency fund in June without first obtaining authority of the Board for so doing. I herewith request that the voucher be approved and the money ordered paid back to me.

Respectfully submitted,

(Signed) ORRIN N. CARTER,

*Attorney.”*

(Transmitting land voucher, \$399.51.)

#### MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of June, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“Balance on hand at date of last report.....	\$1,914,251.16
Received from Thos. F. Judge, Clerk, for General Account, rent from McArthur Bros..	\$150.00
Received from County Treasurer, tax acct...	75,000.00
Received from Thos. F. Judge, Clerk, for Law Department, Land Account, (Thomas Tully, Warrant No. 5054 returned).....	22,246.00
Received from County Treasurer, Tax Account.....	25,000.00
Received from National Bank of Illinois, interest for June.....	614.35
Received from Ft. Dearborn National Bank, interest for June.....	593.58
Received from Metropolitan National Bank, interest for June .....	635.61
Received from American Trust and Savings Bank, interest for June.....	34.51
Received from Chicago National Bank, interest for June.....	592.78
Received from Globe National Bank, interest for June.....	364.95
	<hr/> \$125,231.78
Total cash received for month.....	\$2,039,482.94
Total cash disbursed during month as per annexed schedules, viz:	
Clerical Department....	\$896.16
Treasury Department..	166.67
Engineering Departm't.	14,213.23
Engineering—Construction—Department....	433,607.47
Law Department.....	4,283.05
Law Department—Land Account.....	39,354.60
General Account.....	3,182.65
Police Department.....	4,643.27
Interest and Premium Account.....	75,000.00
	<hr/> \$575,347.10
Balance this date, in banks as per schedule endorsed hereon .....	<hr/> \$1,464,135.84

(Signed) MELVILLE E. STONE,

*Treasurer.*

CHICAGO, July 3, 1894.”



## SCHEDULE:

Fort Dearborn National Bank.....	\$361,122.08
National Bank of Illinois.....	336,962.61
Chicago National Bank.....	360,638.08
Metropolitan National Bank.....	368,859.95
American Trust and Savings Bank.....	21,003.79
Globe National Bank.....	15,549.33

Total.....\$1,464,135.84

PURCHASE OF ADDITIONAL "M'CORMICK"  
LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from Leander J. McCormick, Nettie F. McCormick and Cyrus H. McCormick, Jr., and the trustees of Mary V. and Cyrus H. McCormick, deceased, of certain right of way lands in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Leander J. McCormick, Nettie F. McCormick and Cyrus H. McCormick, Jr., and the trustees of Mary V. and Cyrus H. McCormick, deceased, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Leander J. McCormick, Nettie F. McCormick and Cyrus H. McCormick, Jr., and the trustees of Mary V. and Cyrus H. McCormick, deceased, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

The following is

## THE REPORT:

"CHICAGO, July 11, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Joint Committee on

Finance and Engineering has reached an agreement with Leander J. McCormick; Nettie F. McCormick; Cyrus H. McCormick, Jr.; Nettie F. McCormick, Eldridge M. Fowler and Cyrus H. McCormick, Jr., Trustees of Mary V. McCormick; Nettie F. McCormick and Cyrus H. McCormick, Jr.; as Trustees under the will of Cyrus H. McCormick, deceased, of the respective shares of Anita McCormick Blaine, Harold Fowler McCormick and Stanley Robert McCormick, for the purchase from them for the corporate purposes of this District of the land hereinafter described for the sum of six thousand and three hundred and twenty (\$6,320.00) dollars.

Your Committee recommends that the Clerk of this District be authorized and directed to pay, on the voucher of the Attorney, to said Leander J. McCormick; Nettie F. McCormick; Cyrus H. McCormick, Jr.; Nettie F. McCormick, Eldridge M. Fowler and Cyrus H. McCormick, Jr., Trustees of Mary V. McCormick; Nettie F. McCormick and Cyrus H. McCormick, Jr., as Trustees under the will of Cyrus H. McCormick, deceased, of the respective shares of Anita McCormick Blaine, Harold Fowler McCormick and Stanley Robert McCormick, represented in Chicago by Hubert W. Butler, Attorney, the sum of six thousand three hundred and twenty (\$6,320.00) dollars in full payment for the following described land, to-wit:

Lot five (5) of the County Clerk's Division of unsubdivided lands in that part south (S.) of the West Fork of the South Branch of the Chicago River of the west half (W.  $\frac{1}{2}$ ) of the west half (W.  $\frac{1}{2}$ ) of the south west quarter (S. W.  $\frac{1}{4}$ ) (except boulevard) of Section Thirty (30), Township Thirty-nine (39) North, Range Fourteen (14), east of the Third Principal Meridian; said premises lying and being situated in the County of Cook in the State of Illinois.

Respectfully submitted,

(Signed)

B. A. ECKHART,

Chairman.

W. H. RUSSELL,

THOMAS KELLY,

JOHN J. ALTPETER,

WM. BOLDENWECK,

L. E. COOLEY,

Joint Committee on Finance and Engineering."



PURCHASE OF HEINRICH BUILDINGS AND  
INTEREST IN "MANCHESTER" LANDS.

Mr Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from August Heinrich, of all his buildings on and interest in certain right of way lands in "Manchester," Cook County, and authorizing and directing the Clerk to pay for the said buildings on and interest in the said right of way of lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay August Heinrich, on the voucher of the Attorney, for the said buildings on and interest in the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—Mr. Eckhart—one (1).

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said August Heinrich, on the voucher of the Attorney, for the said buildings on and interest in the said right of way lands, as provided in the report.

The following is

THE REPORT:

"CHICAGO, July 11, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering has reached an agreement with August Heinrich for the purchase from him for the corporate purposes of this District of all his interest as a squatter or otherwise in the land

and lots hereinafter described and for the removal by him from the right of way of the District within fifteen days from the date hereof of all his buildings situated on said land and lots for the sum of one thousand (\$1,000.00) dollars.

Your Committee recommends that the Clerk of this District be authorized and directed to pay, on the voucher of the Attorney, to said August Heinrich the sum of one thousand (\$1,000.00) dollars in full payment for the removal by him from the right of way of the District of his buildings as aforesaid, and in full payment for all his interest as a squatter or otherwise in the following described land and lots, to-wit:

Lots six (6), seven (7), eight (8), nine (9) and ten (10) in Block five (5) of Lichty's Subdivision of Blocks four (4) and five (5) (except lots one (1) to five (5) inclusive in Block five (5) of Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal, of the east half (E. ½) of the northeast quarter (N. E. ¼) of Section thirty-six (36), Township thirty-nine (39) North, Range thirteen (3), East of the Third Principal Meridian; said premises lying and being situate in the County of Cook in the State of Illinois.

Respectfully submitted,

(Signed)

THOMAS KELLY,  
W. H. RUSSELL,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,  
L. E. COOLEY.,

*Joint Committee on Finance and Engineering."*

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

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JULY 18, 1894.

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#### OFFICIAL RECORD.

*(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and thirty-first regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, July 18, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8) members, were present.

#### MINUTES.

The minutes of the regular meetings held July 4 and July 11, 1894, were ap-

proved as printed, on motion of Mr. Russell, seconded by Mr. Boldenweck.

#### WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending July 14, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, July 18, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending July

14, 1894, as the same have been reported to me:

Engineering Department.....	129
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	57

Total employes..... 199

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

# MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of June, 1894; and the report was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the report be ordered printed, and, with accompanying classified statement, referred to the Joint Committee on Engineering and Finance, with instructions to investigate delinquent sections, and report back to the Board.

The motion prevailed unanimously, and the report was ordered printed, and, with accompanying classified statement, so referred.

The following is

## THE REPORT:

"CHICAGO, July 18, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the reports of Divisions 1, 2 and 3, showing the detailed operations of the Engineering Department for the month of June.

The expenses for the month of June were as follows:

Pay rolls.....	\$ 13,219.02
Material account.....	1,150.89
Contractor's estimates.....	428,308.61

Total for June.....\$442,678.52

I estimate the expenses for July under the above heads will be \$500,000.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

(Accompanied by classified statement.)

"CHICAGO, July 16, 1894.

Mr. Isham Randolph, Chief Engineer:

DEAR SIR—In submitting this, my report for the month of June, with accompanying tables, showing the rate of progress during the past month, the condition of the work to date, etc., it is pleasing to note that the average monthly requirement has been exceeded for the first time since the work began—the average being 114 1-10 per cent. of the progress rate required. While the weather has been exceptionally fine for favorable results, the month's output would have been considerably larger but for the scarcity of coal which caused temporary suspension of work on several sections.

Sections O and N. The work on these sections is under the same management and Section O only is as yet accessible for operation. The work on this has been continued with steam dredges supplemented by wheel scrapers and dump cars. The amount of material moved during the month is 100,400 cubic yards, which is equal to 158 per cent. on this section and about 90 per cent. if applied to both sections, as should properly be done under the circumstances.

The force has averaged:

Men.....	85
Teams.....	40
Steam dredges.....	3
Tow boats.....	3.1

Sections M and L. (Heidenrich Co.) also show a decided improvement, and notwithstanding the fact that their rating commences at an unfavorable period, they are now ahead of their contract requirement. The output on Section M was 42,500 cubic yards, equal to 148 per cent; and on Section L, 76,200 cubic yards equal to 174 per cent, or an average of 160 per cent on both their sections, considered together.

The force averaged

Men.....	158
Teams.....	128
Steam shovels.....	3
Incline hoists.....	3

Sections K and I. (Christie & Lowe) also made excellent progress which brings them in advance of their contract obligations. Their estimate on Section K was 64,300 cubic yards, or 140 per cent; and on Section I, 133,800 cubic yards, or 294 per cent, making a total of 198,100 cubic yards



on both sections, which is equal to an average of about 217 per cent. Their method of operation is with steam shovels and Truss Bridge conveyors, New Era graders and wheel scrapers. The steam shovels and Truss Bridge conveyors averaged about 715 cubic yards per shift of ten (10) hours each.

Their force averaged:

Men.....	172
Teams.....	156
Steam shovels and bridge conveyors...	2

Sections H and G (Gahan & Byrne), though still somewhat in arrears, made a very creditable showing. Their work up to this time has been confined to Section G, on which they excavated 102,979 cubic yards, which is equal to 183 per cent on that Section, or an average of about 104 per cent, considering both sections together. Their work has thus far been done mostly with steam shovels and cars and with wheel scrapers. They have erected a new style of belt conveyor which seems to be practical, and are going to try another kind of excavator which is expected to be on the ground during the current month.

The force averaged:

Men.....	146
Teams.....	118
Steam shovel.....	1
Dump cars.....	32
Belt conveyor.....	1

On Section F the work has continued with the use of steam shovels, dump cars and locomotives, the output being 40,928 cubic yards, which is equal to 99 per cent of their monthly rating.

Men.....	95
Teams.....	1
Steam shovels.....	2
Locomotives.....	4
Cars.....	29

On Section E the differences with the contractors are still unadjusted and no work has been done thereon since January.

Section D has continued its steady increase until it is now fully up to the contract rating. The amount excavated during the month is 103,497 cubic yards, or 173 per cent.

The force averaged:

Men.....	110
Teams.....	75
Steam shovels.....	2
Locomotives.....	4
Cars.....	31
New Era graders.....	3

The work on Section C though still far behind shows a gratifying improvement which is promised to be maintained. There was excavated during the month, 73,626 cubic yards, which equals 128 per cent of the monthly rating.

The force averaged:

Men.....	161
Teams.....	19
Steam shovels.....	2
Locomotives.....	4
Cars.....	29
Hydraulic dredge.....	1

Sections B and A (Heldmaier & Neu) continue to gain steadily, and it is hoped will soon attain their contract rating.

It is expected that the hydraulic dredge work will be completed on Section B by August 1st, so that this section can be unwatered and sub-excavation begun. The amount of material moved on both these sections during the month is 150,780 cubic yards, or 111 per cent. The work of filling in the levee is progressing fairly, considering the unstable condition of the trestle. About 22,000 cubic yards of material was placed in this levee during the month.

The force averaged:

Men.....	219
Team.....	1
Steam shovel.....	1
Hydraulic dredges, ten hour shifts.....	3
Dipper dredge.....	1

On Section 1, the new contractors have built a railroad bridge across the Desplaines River and laid a track connecting their section with the Santa Fe Railway, and also along the west side of the channel extending over the levee trestle which they are to fill. They have also done considerable clearing and grubbing and other preliminary work, preparatory for active operations as soon as they are able to get their plant on the ground.

The force averaged:

Men.....	63
Teams.....	5

Sections 2 and 4 (McArthur Bros.) make a fair exhibit for the month, their output being 82,764 cubic yards, or 107 per cent.

The average force was:

Men.....	389
Teams.....	35
Steam shovels.....	3
Steam pumps.....	5
Steam hoists.....	1.5

The contractors on Section 3 are still laboring under adverse circumstances, be-

ing delayed in getting their plant in good working order. They seem now to have appliances which warrant better results, and I see no reason why such should not be realized.

Their output was 26,400 cubic yards of glacial drift and 2,065 cubic yards of solid rock which is 58 per cent of their new rating, or about 90 per cent on the original contract time.

The force averaged:

Men.....	240
Teams.....	11

The plant comprises:

Steam shovels.....	1
Pumps.....	2
Hoisting engines and incline.....	3
Cable ways.....	3
Channellers.....	5
Drills.....	5
Air compressor.....	1
Cars.....	30

Section 5 has shown some improvement, the estimate on same being 43,300 cubic yards of glacial drift and 500 cubic yards of solid rock which is 85 per cent of the monthly requirement.

The force averaged:

Men.....	219
Teams.....	5

The plant in use:      The plant idle:

Steam shovels....	2	Steam shovel....	1
Locomotives....	5	Cars.....	42
Hoists, steam....	2	Steam drill.....	1
Cars.....	100	Pumps.....	3
Channeler.....	1		
Pumps.....	4		

Section 6 gained but little during the month, and owing to the completion of the hydraulic dredge, work will probably fall off considerably during the current month pending the putting in of protection levees before a large part of the section can be unwatered and a plant installed to succeed the hydraulic operations. The amount of material moved was 62,900 cubic yards, which is 64 per cent under the new contract rating. Two new cable ways are in process of construction.

The force averaged:

Men.....	182
Teams.....	9

The plant in use:

Steam hoists.....	4
Hydraulic dredge.....	1
Steam shovel.....	1
Cars.....	18
Pumps.....	4

Section 7 is gradually improving in output and increasing in appliances for doing the work. At the end of the month an air compressor was about ready to start, and two more channelers added. The estimate gives 12,900 cubic yards of glacial drift and 26,600 cubic yards of solid rock, or 90 per cent of the new contract rating.

The force averaged:

Men.....	318
Teams.....	11

The plant in use:

Air compressor, just completed.....	1
Derricks.....	2
Steam hoists.....	3
Cars.....	23
Channelers.....	6
Drills.....	6
Pumps.....	5

A glance at the appended statement of the amount of work done during the month of June will show that no comment is needed on Sections 8, 9, 10, 11, 12 and 13, which are credited with respective percentages as follows: 260 per cent, 181 per cent, 218 per cent, 158 per cent, 103 per cent and 215 per cent, aggregating \$109,218.83 more than the monthly rating on these sections.

While Section 14 for the first time shows an excess of the contract requirements, the result is not at all satisfactory, for the reason that the amount of solid rock handled is nowhere in proportion to what it should be. The contractors have an excellent air compressor, and all their appliances for getting out the rock seem to be of suitable character, but they are deficient in ways and means for removing the rock from the pit to the spoil bank. It is now about six months since the contractors began work on this section, during which time they have been experimenting on a new and untried device for removing the rock which has proved wholly inadequate if not an entire failure thus far. Meantime, the work on the section has been continually running behind, while well-known and practical appliances have long been in use with the gratifying results noted herein of the preceeding rock sections. It is due to the contractor however, to say that he appreciates the situation and assures me that he will at once arrange for such apparatus as is known to be efficient.

The output during the month was 38,500 cubic yards of glacial drift, and 13,400 cubic yards of solid rock, an average of 114 per cent.

The average force was:

Men.....283

The plant in use:

Air compressor.....	1
Hoisting engine and incline.....	1
Channelers.....	6
Power drills.....	10
Pumps.....	4
Small cars.....	14
Double derrick.....	1
Locomotives.....	3
Cars.....	57
Steam shovels.....	2

While it is gratifying to note that the average rate of progress during the past month is in excess of the contract require-

ments, one should not lose sight of the fact that many of our most expensive sections (the rock sections) are rapidly approaching completion, and at the present rate, will be finished in less than one year, while many of the delinquent earth sections may be considered but fairly started. Such conditions seem to demand that the most decisive action be taken to insure the reclamation of all lost time on every section that is now in arrears.

Respectfully submitted,

(Signed)

U. W. WESTON,

*Supt. of Construction.*"



TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVER

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION.	
		<i>Glacial Drift</i>	<i>Solid Rock.</i>	<i>Glacial Drift</i>	<i>Solid Rock.</i>
		Cubic Yards.	Cubic Yards.	Cubic Yards.	Cubic Yards.
O	McMahon & Montgomery Co. et al.	131,200			
N	Hayes Bros. et al.				
M	The Heidenreich Co.	68,800			
L	The Heidenreich Co.	147,300			
K	Christie & Lowe	85,500			
J	Christie & Lowe	227,400			
H	Gahan & Byrne				
G	Gahan & Byrne	192,984			
F	Ricker, Lee & Co.	408,973		158,234	
E	Streeter & Kenefick	469,163		95,718	
D	E. D. Smith & Co.	716,196			
C	Western Dredging & Imp. Co.	378,725		162,587	
B	Heldmaier & Neu	331,454		204,626	
A	Heldmaier & Neu	382,554		117,786	
1	Griffiths & McDermott	119,526		5,876	
2	McArthur Bros.	321,939		29,516	
3	Gilman & Co.	247,010	2,065		
4	McArthur Bros.	354,400			
5	The Qualey Construction Company	326,600	500		
6	Mason, Hoge & Co.	340,100		112,700	
7	Mason, Hoge & Co.	109,700	160,500	96,700	41,000
8	Mason, Hoge, King & Co.	34,400	275,100	52,900	96,200
9	Halvorson, Richards & Co.	60,600	234,700	37,700	16,000
10	E. D. Smith & Co.	26,400	520,400	27,400	56,500
11	Mason, Hoge & Co.	43,492	440,600	5,756	11,483
12	Mason, Hoge & Co.	27,400	420,500		
13	Mason, Hoge & Co.	32,822	621,800		
14	Smith & Eastman	186,500	167,400		
Totals		5,721,138	2,843,565	1,107,449	221,183

Main Channel, glacial drift.....

Main Channel, solid rock.....

River Diversion, glacial drift.....

River Diversion, solid rock.....

Total amount required to be done July 1st, 1894.....

Total amount done July 1st, 1894.....

Total amount short as per contracts.....

Total value of work done July 1st, 1894.....

Reserved.....

} 12½ per cent.....

} 10 per cent.....

Total value of vouchers paid including those of July 1st, 1894.....

## SION) AND CONDITION OF WORK ON CONTRACTS JULY 1ST, 1894.

Total value of work done to July 1st, 1894, on each section.	Total value of work required to be done to July 1st, 1894.	Amounts behind as per contracts.	Amounts ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary June 1st, 1894, to time of completion.	Progress made during month of June, 1894.
\$ 27,552 00	\$ 26,746 60		\$ 805 40	\$13,373 30	\$13 673 53	\$21,084 00
14,929 60	21,229 62	\$ 21,229 62		10,614 81	11,076 32	
29,018 10	18,765 06	3,885 46		6,255 02	6,550 80	9,222 50
21,375 00	25,945 08		3,073 02	8,648 36	8,791 40	15,011 40
56,850 00	34,471 65	13,096 65		11,490 55	12,259 29	16,075 00
	34,085 82		22,764 18	11,361 94	11,332 54	33,450 00
	35,900 49	35,900 49		11,966 83	13,007 42	
54,055 52	47,374 14		6,661 38	15,791 38	16,068 83	28,834 12
134,711 61	136 382 34	1,670 68		10,909 78	10,928 09	9,642 02
155,342 28	196,001 58	40,659 30		16,940 19	18,018 34	
189,344 32	186,449 64		2,894 68	15,788 43	16,182 92	27,362 02
127,196 57	177,848 52	50,651 45		14,820 71	17,235 86	17,302 11
144,741 60	182 161 68	37,420 08		15,180 14	17,648 80	32 070 60
153,229 12	304,876 56	151,647 44		25,406 38	31,590 06	9,800 00
34,290 86	88,026 29	53 735 43		53,735 43	53,735 43	
162,705 48	318,631 00	155,925 52		18,743 00	24,863 58	15 832 00
118,635 10	216,642 24	98,007 14		23,121 21	33,566 96	16,353 40
162,965 54	353 226 60	190 261 06		19,623 71	27,776 89	25,039 00
91,641 50	285 550 83	193,909 33		16,317 19	24,128 73	13,790 50
121,051 00	136,925 02	15 874 02		26,661 51	26,930 88	16 983 00
201,766 50	218,061 18	16 294 68		25,550 84	26,144 27	22,905 00
300,244 75	446,006 57	145,761 82		23,474 03	31,195 11	55,298 75
218 346 30	376,842 01	158,495 71		19,333 79	27,377 55	34 844 50
474,970 00	450,712 27		24,257 73	23,774 33	23,854 68	48 880 00
373,173 30	375,409 79	2 236 49		19,758 41	20 333 49	30,749 00
341,534 75	364 801 14	23 266 39		19,200 05	20,238 28	19,812 50
473,329 22	353 184 35		120,144 87	18,588 65	14,292 26	39 916 50
161,422 00	392 407 57	230,985 57		20,653 03	30,825 84	23,642 00
\$4,344,402 07	\$5,804,665 64	\$1,640,864 83	\$180,601 26	\$522,583 01	\$589,628 23	\$583,899 92

## Cubic Yards.

5,721,138
2,843,565
1,107,449
221,183
\$5,804,665 64
4,344,402 07
\$1,460,263 57
\$4,344,402 07
\$528,153 85
90,423 09
618,576 94
\$3,725,825 13

## FORCE REPORT—DAILY AVERAGE, JUNE, 1894.

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Channellers.	Air Compressors.	Conveyors.	Locomotives.	Cars.	Dredges.	Cableways.	Graders.	Steam Tow Boats.
O.....	85	40	...	...	...	...	...	...	1.3	...	...	3	...	...	3.1
M.....	60	17	1.5	.5	...	...	...	...	1.5	...	24	...	...	...	...
L.....	98	59	1.5	.3	...	...	...	...	...	...	...	...	...	...	...
K.....	41	69	...	...	...	...	...	...	...	...	...	...	...	...	...
I.....	131	87	2.0	2.2	...	...	...	...	2.0	...	...	...	...	...	...
G.....	146	118	1.0	1.6	...	...	...	...	1.0	...	32	...	...	...	...
F.....	95	1	2	3	...	...	...	...	...	4	29	...	...	...	...
D.....	110	75	2	3	...	...	...	...	...	4	31	...	...	3.1	...
C.....	161	19	2	3	...	...	...	...	...	4	29	...	...	...	...
B.....	127	...	...	...	...	...	...	...	...	...	...	3.3	...	...	...
A.....	92	1	...	.9	...	...	...	...	...	...	...	3	...	...	...
1.....	63	5	...	...	...	...	...	...	...	...	...	...	...	...	...
2.....	180	21	1.5	4.6	...	1	...	...	...	...	56	...	...	...	...
3.....	240	11	...	5.4	...	2.3	3	...	...	...	25	...	...	...	...
4.....	209	24	2.9	4.6	...	1.5	...	...	...	...	95	...	...	...	...
5.....	219	5	1.7	5.1	...	...	9	...	...	5	103	...	...	...	...
6.....	182	9	...	2.6	...	3	...	...	...	...	18	2	...	...	...
7.....	318	11	...	...	8	3.9	4.9	...	1.9	...	23	...	...	...	...
8.....	584	25	...	2.8	19.9	3	11.3	1	...	...	23	...	5.5	...	...
9.....	403	10	...	4.6	12.8	3	5.5	...	1.6	...	126	...	...	...	...
10.....	456	6	...	2.8	18.7	3.4	10	...	2.9	...	140	...	...	...	...
11.....	191	4	...	5	14	...	7.1	1.1	...	...	8	...	...	...	...
12.....	142	5	...	3.9	7.5	...	2.5	1	...	...	4	...	...	...	...
13.....	294	4	...	6.4	15.9	...	8.6	1.1	4.2	...	...	...	...	...	...
14.....	233	...	1.8	...	6.7	...	3.7	.8	.6	3	57	...	...	...	...
Totals.....	4,860	626	21.9	65.4	108.7	22.8	57.5	5.0	17.0	20	728	9.5	5.5	3.1	3.1

## STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE MONTH OF JUNE, 1894 (MAIN CHANNEL).

SECTIONS.	Amount Done During June.	Average Monthly Requirement.	Deficiency for June.	Excess Over Monthly Requirement.	Per Cent. of Monthly Requirement.
O.....	\$21,034 00	\$ 13,373 30	...	\$ 7,710 70	1.58
N.....	...	10,614 81	\$ 10,614 81	...	0.00
M.....	9,222 50	6,255 02	...	2,967 48	1.48
L.....	15,011 40	8,648 36	...	6,363 04	1.74
K.....	16,075 00	11,490 55	...	4,584 45	1.40
I.....	32,450 00	11,361 94	...	22,088 06	2.94
H.....	...	11,966 83	11,966 83	...	0.00
G.....	28,834 12	15,791 38	...	13,042 74	1.83
F.....	9,642 02	9,770 98	128 96	...	0.99
E.....	...	16,142 53	16,142 53	...	0.00
D.....	27,362 02	15,788 43	...	11,573 59	1.73
C.....	17,302 11	13,568 10	...	3,734 01	1.28
B.....	32,070 60	13,443 95	...	18,626 65	2.39
A.....	9,800 00	24,224 63	14,424 63	...	0.40
1.....	...	53,735 43	53,735 43	...	0.00
2.....	15,832 00	18,541 43	2,709 43	...	0.85
3.....	16,353 40	28,121 22	11,767 82	...	0.58
4.....	25,039 00	19,623 70	...	5,415 30	1.28
5.....	13,790 50	16,317 19	2,526 69	...	0.85
6.....	16,983 00	26,619 64	9,636 64	...	0.64
7.....	22,905 00	25,462 74	2,557 74	...	0.90
8.....	55,298 75	21,295 08	...	34,003 67	2.60
9.....	34,844 50	19,232 36	...	15,612 14	1.81
10.....	48,880 00	22,472 29	...	26,407 71	2.18
11.....	30,749 00	19,493 98	...	11,255 02	1.58
12.....	19,812 50	19,200 06	...	612 44	1.03
13.....	39,916 50	18,588 65	...	21,327 85	2.15
14.....	23,642 00	20,653 03	...	2,988 97	1.14
Totals.....	\$583,899 92	\$511,797 61	\$136 211 51	\$208 313 82	1.1409



“CHICAGO, July 6, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR:—The work of Division 2 for the month of June was as follows:

The stadia survey at Joliet has been carried southward along the west bank of the Canal as far as McDonough street and along the east bank the field work is completed as far as Jackson street. The notes are being reduced and circuits completed.

Additional land surveys were made between Lockport and Joliet, the survey of 22 tracts being completed.

The diagrams and tabulation of results of the discharge measurements made at the spillway and near Willow Springs have been completed.

A profile of the River Diversion Channel, showing the water surface elevations and slopes between Riverside and Lockport is being made.

The work of taking record photographs was continued.

The digging of test pits on Sections E and F was completed.

Examinations and surveys with reference to railroad location between Bridgeport and Joliet were undertaken.

The maintenance and record of water gauges was continued.

The expenses for July will approximate to those of June.

Respectfully,

(Signed) THOS. T. JOHNSTON,  
*First Assistant Chief Engineer.*”

“CHICAGO, July 10, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of June, 1894:

Finished a map showing the right of way from Chicago to Joliet; a tracing of the right of way in Contract, Sections I and K; a plan showing proposed improvements between the south end of Contract Section 14 and Section 34, Township 36 North, Range 10 East, and a map, profile, cross-section and the detailed plans of Contract Section 15.

Made tracings of right of way tracts on Sections 22, 27, 28, 33 and 34, Township 36 North, Range 10 East, a map and

profile of a proposed railroad crossing of the Main Channel between Western avenue and Corwith, a revised plan of the retaining walls at the junction of the earth and rock channels at Willow Springs, and a tracing of profile showing test pits on Contract Sections E and F.

The acreages of right of way tracts in Sections 22, 27, 28, 33 and 34, Township 36 North, Range 10 East, and south half of Sections 15 and 16, Township 37 North, Range 11 East, were calculated.

Work was also done on a plan showing cross-sections of various canals, and a map of the Illinois River showing overflowed areas during high floods.

A profile of the Illinois River was finished. Work was continued on the District Map, the general map of the line, and the maps of right of way for the plat books.

Commenced a plat of surveys northwest of the Desplaines River between the Summit Road and the south line of Section 15, Township 38 North, Range 12 East, and three large scale maps and profiles of the railroad crossing at Western avenue, and the highway crossings at Lemont and Romeo.

Some copies of railroad profiles and county records were made.

The expenses for July will be the same as for the past month.

Yours respectfully,

(Signed) EDGAR WILLIAMS,  
*Second Assistant Chief Engineer.*”

EXTENSION OF AGREED TIME FOR COMPLETION OF LEVEE ON SECTION A.

The Clerk presented a report from the Chief Engineer, asking an extension of time, as set forth in the report, for the completion of river diversion levee on Section A, under the supplementary agreement with Heldmaier & Neu, contractors for said section, approved and executed February 10, 1894 (page 1738 of the Proceedings); and the report was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the report be adopted, ordered printed, and placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

The following is

THE REPORT:

"CHICAGO, July 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In the supplementary agreement with Heldmaier & Neu for work upon Section A of the Main Drainage Channel executed February 10th last (pages 1738 and 1740 of Proceedings) in the fourth clause provision is made for the completion of the River Diversion Levee as far as Station 710 by July 1st, which date has now passed and the levee is but half done. The contractors have placed about 8,000 cubic yards in this fill since July 1st, which cannot be paid for without a formal action on your part giving an extension of time. The work yet to be done is essential, and the contractors are going ahead to complete it in accordance with all of the terms of the contract, time only excepted, and I therefore ask you to extend the time limit to September 30.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

CONTRACT FOR ADDITIONAL WILL  
COUNTY ABSTRACTS OF TITLE—LOCK-  
PORT TO JOLIET.

The Clerk presented a report from the Attorney, transmitting propositions from William C. Barber, The Will County Abstract Company, and John O'Connor, all of Joliet, Illinois, to furnish abstracts of title to certain additional lands in Will County—Lockport to Joliet—and recommending that the proposition "B" of the Will County Abstract Company be accepted, as provided in the report; and the report, with accompanying propositions, was read.

Mr. Eckhart, seconded by Mr. Russell, moved that the report be adopted, with enclosures, ordered printed and placed on file, the recommendations made in the report concurred in, and the Attorney be authorized to contract with said Will County Abstract Company under its proposition "B" for said abstracts of title, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, with enclosures, ordered printed and placed on file, the recommendations made in the report concurred in, and the Attorney authorized to contract with said Will County Abstract Company, under its proposition "B" for said abstracts of title, as provided in the report.

The following is

THE REPORT, WITH ENCLOSURES:

"CHICAGO, July 18, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I enclose herewith proposition from William C. Barber, the Will County Abstract Company, and John O'Connor, for furnishing abstracts of title to certain lands in Will county necessary for the corporate purposes of the District and described in Schedules A and B, furnished said abstractors for the purposes of making their bids. Schedule A provides for a separate abstract for each ownership. Schedule B comprises under one caption in some cases two or more ownerships where same lie in same quarter or half section, and requires some additional labor on the part of the attorneys examining title, over what would be necessary were the abstracts furnished under Schedule A. The lands include all the remaining land that will be needed by the District, according to the present plans, this side of the Upper Basin at Joliet.

The bid of the Will County Abstract Company to furnish abstracts under the captions specified in Schedule B for the sum of \$612.80 seems to me to be the most favorable to the District. From an additional communication in response to the question as to how soon the abstracts could be furnished in case the bid is accepted, I learn that they can be completed within from three to four weeks after having received notice of the acceptance of the bid. This is as favorable as to time as proposed by any of the bidders. I therefor recommend that the proposition of the Will County Abstract Company to furnish abstracts for the lands described on Schedule B for the sum of \$612.80 be accepted by the Board, and that the Attorney be authorized to make a contract with said company, with proper limitations, and upon the terms here recommended.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
*Attorney."*

(Three (3) enclosures.)



(Enclosures.)

"JOLIET, Ill., July 10, 1894.

*Mr. Orrin N. Carter, Attorney for Trustees of Sanitary District of Chicago:*

DEAR SIR—I shall be pleased to furnish to your Board of Trustees merchantable abstracts of title to the lands mentioned in the schedules received by me on June 25, 1894, marked "A" and "B," certified from the government to July 1, 1894, and to furnish the additional information as to said titles requested in your proposal for bids received by me on June 22, 1894, provided the condemnation suits referred to in your said proposal be terminated within a reasonable time, say three years from this date, for the following sums: Separate abstracts for each tract mentioned in Schedule "A" for \$900.00; or separate abstracts for each tract mentioned in Schedule "B" for \$675.00.

The above proposal is with the understanding that abstracts of the lands on 22, 36, 10, from Government to Sept. 1, 1893, will be furnished by you for re-vamping.

Respectfully submitted,

(Signed) WILLIAM C. BARBER."

"JOLIET, July 12, 1894.

*Messrs. Haley & O'Donnell:*

In response to your proposition for bids for abstracts, we beg to submit the following:

We hereby offer to make abstracts covering the property described in Schedules "A" and "B" accompanying said proposition and the supplement to Schedule "B" sent later, the same to be made in conformity with the conditions of said proposition at the following prices:

For Schedule "A".....\$850 80  
For Schedule "B"..... 612 80

(Signed)

THE WILL COUNTY ABSTRACT Co.,

By BEN. D. JONES,

*Manager."*

"JOLIET, Ill., July 12th, 1894.

*Messrs. Haley & O'Donnell. Joliet, Illinois:*

GENTLEMEN—In reply to your communication "to abstractors," inviting

bids for merchantable abstracts of title to sundry tracts of land in Will County, Illinois, mentioned in the descriptions furnished me and designated "A" and "B," I desire to state that I will furnish the Sanitary District of Chicago with merchantable abstracts of the title to the lands mentioned in said descriptions, certified to in the usual way as showing the title thereto as appears of record in Will County, Illinois, from the Government down to an including July first (1st), 1894. The abstracts of the lands described as being in Section 22 in Township 36, Range 10, to be continuations, only, since September 1st, 1893. The abstracts are to be furnished within a reasonable time from the date the order is left.

In addition to furnishing said abstracts, and without additional charge, I also agree to furnish the representatives of said Sanitary District with any desired information, shown by my abstract books, as to the title to the lands included in said descriptions, necessary to enable said Sanitary District to properly carry on any condemnation suit involving said premises, and also agree to furnish a chain of title, if required, showing any instruments recorded in the Recorder's office of Will County, Illinois, between July 1st, 1894, and the commencement of any condemnation suit concerning the title to any of the property included in said abstracts. The abstracts are to be prepared, as to chain of title and number, with a view to showing the recorded title in the order most convenient for the examining attorney to examine, and in so doing the number of abstracts shall not be less than nine (9) nor more than twelve (12), and in such order as may, from time to time, be directed by the attorney for the said Sanitary District, or his agents, for the sum of six hundred and thirty-two (\$632) dollars.

Very respectfully,

(Signed) JOHN O'CONNOR."

PURCHASE OF "UNION NATIONAL BANK" LANDS.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from the Union National Bank of Chicago of certain right of way lands in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands, on the voucher of the Attorney, as provided in the report; and the report was read.



Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay the said Union National Bank of Chicago, on the voucher of the Attorney, for said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed pay to the said Union National Bank of Chicago, on the voucher of the Attorney, for said right of way lands, as provided in the report.

The following is

#### THE REPORT:

“CHICAGO, July 18th, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering have reached an agreement with the Union National Bank of Chicago for the purchase from it for the corporate purposes of this District of the land hereinafter described for the sum of three thousand (\$3,000) dollars.

Your Committee recommends that the Clerk of this District be authorized and directed to pay, on the voucher of the Attorney, to said Union National Bank of Chicago the sum of three thousand (\$3,000) dollars in full payment for the following described premises, to-wit:

That part of the west half (W.  $\frac{1}{2}$ ) of the east half (E.  $\frac{1}{2}$ ) of the northwest quarter (N. W.  $\frac{1}{4}$ ) of the northwest quarter (N. W.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) North, Range thirteen (13), East of the Third Principal Meridian, lying south (S.) of a straight line drawn from a point in the south (S.) line of the northwest quarter (N. W.  $\frac{1}{4}$ ) of the northwest quarter (N. W.  $\frac{1}{4}$ ) of said Section forty-two and one one-hundredths (42.01) feet west (W.) of the southeast (S. E.) corner of the west half (W.  $\frac{1}{2}$ ) of the northwest quarter (N. W.  $\frac{1}{4}$ ) of said northwest quarter (N. W.  $\frac{1}{4}$ ) to a point in the east (E.) line of the northwest quarter (N. W.  $\frac{1}{4}$ ) of said Section five hundred and thirty-three and seventy-two one-hundredths (533.72) feet

south (S) of the northeast (N. E.) corner of the northwest quarter (N. W.  $\frac{1}{4}$ ) of said section, said premises lying and being situate in the County of Cook, State of Illinois.

Respectfully submitted,

(Signed) B. A. ECKHART,

*Chairman.*

L. E. COOLEY,

THOMAS KELLY,

WM. BOLDENWECK,

W. H. RUSSELL,

JOHN J. ALTPETER,

*Joint Committee on Finance and Engineering.”*

PAYMENT FOR “BLECHA,” “SABATH,” “JINDRICH” AND “HEINEMANN,” TRUSTEE” LANDS.

Mr. Eckhart presented an order authorizing and directing the Clerk to pay Adolph and Frantiska Blecha, Joseph Sabath, Charles Jindrich and William Heinemann, Trustee, and Henry Wulff, County Clerk of Cook County, Illinois, on the voucher of the Attorney, certain sums as provided in the order for certain right of way lands in Cook County, in full of verdict for said lands, in the case of the Sanitary District of Chicago vs. Frances Livingston, Charles Jindrich, et al., as provided in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Kelly, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk authorized and directed to pay said Adolph and Frantiska Blecha, Joseph Sabath, Charles Jindrich, and William Heinemann, Trustee, and Henry Wulff, County Clerk of Cook County, Illinois, on the voucher of the Attorney, certain sums as provided in the order, for certain right of way lands in Cook County, in full of verdict for said lands, in the case of the Sanitary District of Chicago vs. Frances Livingston, Charles Jindrich, et al., as provided in the order.

The following is

#### THE ORDER:

“Ordered, That the Clerk of this Dis-

tract be and he is hereby authorized and directed to pay, on the voucher of the Attorney, to Adolf Blecha and Frantiska Blecha the sum of four hundred and fifty (\$450.00) dollars as compensation for the taking by the District of the following described land, to-wit:

Lot nineteen (19) in Sabath's Re-subdivision of Block four (4) of Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) north, Range thirteen (13), east of the Third Principal Meridian; said premises lying and being situate in the County of Cook, in the State of Illinois;

To Joseph Sabath the sum of four hundred and seventy-five (\$475.00) dollars as compensation for the taking by the District of the following described land, to-wit:

Lot twenty-two (22) in Sabath's Re-subdivision of Block four (4) of Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) north, Range thirteen (13), east of the Third Principal Meridian; said premises lying and being situate in the County of Cook, in the State of Illinois;

To Charles Jindrich the sum of seven thousand and fifty dollars and forty-eight cents (\$7,050.48) as compensation for the taking by the District of the following described land, to-wit:

Lots three (3), four (4), five (5), six (6), seven (7), eight (8), nine (9), ten (10), eleven (11), twelve (12), thirteen (13), fourteen (14), twenty-one (21), twenty-three (23), twenty-four (24) and twenty-six (26) in Sabath's Re-subdivision of Block four (4) of Manchester, said Manchester being a subdivision of that part lying north (N.) of the Illinois and Michigan Canal of the east half (E.  $\frac{1}{2}$ ) of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) north, range thirteen (13), east of the Third Principal Meridian; said premises lying and being situate in the County of Cook, in the State of Illinois:

To William Heinemann, Trustee, the sum of one thousand four hundred and sixty dollars and eighty-four cents (\$1,460.84) in payment of the indebtedness secured by the trust deed upon all

of the above described lots, dated January 19, 1892, and recorded February 4, 1892, as Document 1,607,460, in the recorder's office of Cook County, Illinois, in book 3,777, page 364;

To Henry Wulff, County Clerk of Cook County, Illinois, the sum of one hundred and thirteen dollars and sixty-eight cents (\$113.68) for the redemption from the sale for taxes for the year 1892 on all of said premises except Lot nineteen (19);

Said sums being the respective amounts awarded by the verdict of the jury in the Circuit Court of Cook County, Illinois, and the order of judgment entered therein the fourteenth day of July, A. D. 1894, in certain condemnation proceedings then pending in said court, being case numbered 123,926, entitled Sanitary District of Chicago vs. Frances Livingston, Charles Jindrich, et al."

#### REPORT ON CLAIMS FOR HARD MATERIAL ON SECTIONS C, D, E AND F.

Mr. Cooley, Chairman, presented, from the Joint Committee on Engineering and Finance, a majority and a minority report, with reference to and accompanied by three communications, from the Western Dredging and Improvement Company, Streeter & Kenefick, and Ricker, Lee & Co., presented and referred to that Committee at the meetings held March 28, 1894 and April 4, 1894, (pages 1842 and 1854 of the Proceedings), and also with reference to and transmitting a communication to the Committee from E. D. Smith & Co., contractors on Section D, all enclosures making claim for additional price for certain hard material said to have been encountered in excavation on Sections C, D, E and F; and the majority and minority reports were read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the majority report be adopted, with minority report and accompanying communication be ordered printed, and, with all enclosures, placed on file, and the recommendations made in the majority report be concurred in.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the minority report be substituted for the majority report.

On roll-call on the substitute the vote stood: Yeas—Messrs. Boldenweck, Cooley, Gilmore, Russell and Wenter—five (5). Nays—Messrs. Altpeter, Eckhart and Kelly—three (3).

Upon which result the President declared the motion carried and the min.



ority report substituted for the majority report.

Mr. Boldenweck, seconded by Mr. Cooley, then moved that the minority report be adopted, with accompanying communication and majority report be ordered printed, and, with all enclosures be placed on file, and the recommendations made in the minority report be concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Gilmore, Russell and Wenter—five (5). Nays—Messrs. Altpeter, Eckhart and Kelly—three (3).

Upon which result the President declared the motion carried, the minority report adopted, and with accompanying communication and majority report ordered printed, and with all enclosures placed on file, and the recommendations made in the minority report concurred in.

The following is

#### THE MAJORITY REPORT:

“CHICAGO, July 16, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the several petitions for a re-adjustment of contracts on Sections C, D, E and F, on account of alleged difficult material encountered in excavation, we believe that this material is covered and fully comprehended in the several contracts, and that therefore there is no propriety in further considering the matter.

We therefore recommend that the petitions be denied, and that the several contractors be notified to that effect, and instructed to proceed vigorously with work under their contract and in full compliance with the progress therein called for, and further, that the Executive Department take full cognizance of the situation, to the end that said contracts or any of them be placed in new hands as promptly as practicable in the event of failure to comply with their provisions in any essential particular.

Respectfully submitted,

(Signed)

B. A. ECKHART,

THOMAS KELLY,

JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance.*

The following is

#### THE MINORITY REPORT, WITH ACCOMPANYING COMMUNICATION:

“CHICAGO, July 18, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—On March 28, 1894 (page 1842 of the Proceedings), the Board referred to this Committee a petition from Streeter & Kenefick, contractors for Section E, alleging certain difficult material not contemplated by their contract, and asking for relief. On April 4, 1894 (pages 1854 and 1855), similar petitions were received from Ricker, Lee & Company, contractors for Section F, and the Western Dredging and Improvement Company, contractors for Section C. Under date of April 3, 1894, a communication was made directly to the Committee by E. D. Smith & Company, contractors for Section D, which is transmitted herewith to be printed in the records, for the information of members.

These several communications are all of substantially the same import, and have been considered together. The strict and literal interpretation of the several contracts by the Chief Engineer is sufficiently conveyed in the communication by E. D. Smith & Company in the reference to the decision of June 26, 1893, in the case of McArthur Brothers, on Sections 2, 3 and 4.

The Committee has taken the question under advisement, and on May 7, 1894, the Chief Engineer was requested to organize a Commission, to consist of the Chief Engineer, First Assistant Chief Engineer, the Superintendent and Assistant Superintendent of Construction, and three (3) assistant engineers employed on the earth work, to investigate fully in regard to the nature, extent and actual cost of excavating said hard material on Sections C, D, E and F, and lay the result of such investigation before this Committee.

An elaborate set of test pits was made on Sections E and F, which have very fully developed the conditions on these two most characteristic sections. The conditions on Section D are quite fully disclosed by the progress of the work on this section, and on Section C less information is in hand, but radical conditions have not as yet been disclosed.

It is proper to say that the attention of the Committee was first called to the question on Section E in December last, and that a visit was then made to that



section. The question has, however, been under formal advisement only since the reference in May. Meantime, the Committee and its members have taken every opportunity to be fully advised in regard to the actual conditions through personal inspections and through the investigations of the officers of the Board. The knowledge of the character of the material to be excavated is probably as definite as can be had prior to the actual work.

In all these considerations, the Committee has been grievously embarrassed by a disagreement on the fundamental question of policy, a portion of the Committee taking the position that no consideration should be given the matter, and that the petitions for relief should not be entertained.

We are persuaded that no useful end would be served by such a course, and that on the contrary grave injustice would be done and the work most seriously delayed, and the cost thereof materially increased.

We do not feel called upon at this time to mature definite terms of settlement, but to that end, we make the following recommendation:

That the President be authorized and instructed to associate with himself two members, to act as a Special Committee of three, for the purpose of arriving at definite terms of settlement of matters in controversy on Sections C, D, E and F, so far as may be proper in their judgment, subject to the approval of the Board, and that they report at the next meeting of the Board, and from week to week, as results are obtained.

The papers submitted to the Committee are transmitted herewith for filing.

Very respectfully submitted,  
Signed) L. E. COOLEY,  
Chairman. .  
WM. BOLDENWECK,  
W. H. RUSSELL,

*Joint Committee on Engineering and Finance.*"

(Accompanied by communication and three (3) other enclosures.)

THE COMMUNICATION:

"ROMEOVILLE, }  
WILL CO., ILL., April 3, 1894. }

*Engineering and Finance Committee,  
Chicago Sanitary District, Rialto Bldg.,  
Chicago, Ill.*

GENTLEMEN—On March 24, 1894, we

addressed a letter to the Chief Engineer of the Sanitary District, asking his consideration to our claim for extra compensation on account of the very hard material we are digging on Section D.

In answer to this communication, the Chief Engineer called our attention to his decision of June 26, 1893, in the case of McArthur, on Sections 2, 3 and 4, which he claims are applicable to our case. As we have failed to have the Chief Engineer review our case except as regards other cases decided on, we would ask your Committee to consider our claim for classification.

We have put in the very best machinery on this work that could be found in the market, without regard to cost of same; our shovels are very heavy, and should be able to dig anything short of solid rock. We are digging this material, but the quantity that we get out per day, and number of delays from break downs, with the terribly large outlay for repairs, make the work impossible to do at the price paid us for drift. The only way this material can be handled is to blow it with powder, and no contractor can be expected to handle material at drift prices, on which he has to use powder.

Our shovels were built and equipped with 2½ yard dippers, and were constructed to handle same; on account of this very hard material we have bought new dippers of 1½ yard capacity, and even with this reduced size, we find it impossible to hold our machines together.

We ask your consideration of this matter, and an inspection of the material we are handling, when we feel confident that none of your Committee will call it "Glacial Drift."

Respectfully,  
(Signed) E. D. SMITH & Co."

APPOINTMENT OF SPECIAL COMMITTEE  
ON SETTLEMENT OF DIFFICULT  
MATERIAL CONTROVERSY.

The President then announced that in pursuance of the recommendations made in the minority report of the Joint Committee on Engineering and Finance just adopted, as read and shown above, he would appoint as the Special Committee, for the purpose of arriving at definite terms of settlement of matters in controversy on Sections C, D, E and F, the President of the Board and Messrs. Cooley and Kelly.

EXCLUSION OF SALOONS FROM RIGHT  
OF WAY.

Mr. Gilmore, Chairman, presented a

report from the Committee on Health and Public Order, accompanied by order, with reference to the removal of saloons now located on, and the prevention of the location of other saloons on the right of way of the Main Channel of the District; and the report and accompanying order were read.

Mr. Gilmore, seconded by Mr. Altpeter, moved that the report and accompanying order be adopted, ordered printed and placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report and accompanying order adopted, ordered printed and placed on file, and the recommendations made in the report concurred in.

The following is

THE REPORT, WITH ACCOMPANYING ORDER:

“CHICAGO, July 18, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Many complaints have been made to the Trustees and to the Marshal as to the location of saloons in close proximity to the work of the District, and especially to the location of saloons between the Main Channel and the Illinois and Michigan Canal.

Your Committee have taken this matter up in conjunction with the President, Attorney and Marshal and have given it a careful consideration. We believe that the best interests of all concerned demand the adoption of some policy by this Board on the subject, and we therefore recommend the adoption of the order hereto attached.

Respectfully submitted,

(Signed) A. P. GILMORE,  
Chairman.

JOHN J. ALTPETER,

*Committee on Health and Public Order.”*

ORDER:

“WHEREAS, The location of saloons in close proximity to the right of way of the Sanitary District, or between said right of way and the Illinois and Michigan canal, is, from a business point of

view, contrary to the best interests of employes and contractors, and if permitted without restriction will necessarily cause a large addition to be made to the police force of the District, thereby causing an increased outlay of money without any corresponding benefit to the people of the District; and,

WHEREAS, The fact that between Robey street and Summit, and between Lemont and Lockport there are narrow strips of land lying between the Santa Fe railroad and the Illinois and Michigan Canal which are particularly apt to be chosen for the location of saloons; that these strips are bounded on the one side by the canal bank and on the other by spoil banks from the excavation of the Main Channel of the District, and are seldom intersected by cross streets or roads and thus in a manner form long and narrow lanes walled in on each side, with the railroad running through them, which makes them especially dangerous, particularly for men who are intoxicated; and

WHEREAS, The location of saloons upon said strips of land is not only the means of introducing an increased element of disturbance to public order, but is dangerous to the employes themselves and has already caused the death of some persons who have attempted in an intoxicated condition to cross the canal or railroad; and public safety demands that the danger therefrom should be lessened as much as possible by the removal, so far as it may be done, of all saloons from said strips of land; therefore, be it,

*Ordered*, That the executive officers of this Board be and they are hereby instructed not to suffer or permit the sale of any intoxicating liquors or the establishment of any saloons upon the right of way of the Sanitary District; and be it further,

*Ordered*, That the President, together with the Attorney and Marshal, be and they are hereby instructed to take such steps as may legally be taken to cause the removal of any saloons now located between the Main Channel of the District and the Illinois and Michigan Canal, and to prevent the location of any other saloons in said territory.”

PROPOSITION TO PURCHASE STONE EXCAVATED ON MAIN CHANNEL.

The Clerk presented a communication from Howard H. Gross, making proposition for the purchase of stone excavated from the Main Channel, as set forth in in the communication; and the communication was read.



Mr. Boldenweck, seconded by Mr. Alt-peter; moved that the communication be ordered printed and referred to the Joint Committee on Finance and Engineering.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

THE COMMUNICATION:

*"To the Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I desire to submit to you the following plan and proposition for disposing of all the merchantable stone on the spoil banks of the Drainage Canal that will not be required to be used by you in completing the retaining walls and other work in and about the canal proper.

In marketing this stone whether as flux macadam or rubble, it should be done so as not to demoralize or destroy the trade and work an irreparable injury to the various quarry properties. By the plan suggested it will be seen that this product may be handled so as to rather benefit than injure the stone business, yield a large return to the Sanitary District and clear the spoil bank and make a valuable property available without your Honorable Body going to any outlay or assuming any liabilities on account of the same.

The material should be disposed of as far as practicable through the wholesale dealers and manufacturers, and supplied to them at prices that will make it to their interest to handle the same. This could be better and more easily done if the Sanitary District were to place the entire product in the hands of some proper party to handle for and on its account, upon the general lines laid down herein.

Whereas, to sell outright the stone on the several sections to different parties would result in confusion, demoralization and lasting injury to the business, provoke a large amount of criticism and probably would not in the end return as large a revenue to the Sanitary District.

To market this stone it will be necessary to have a large equipment of steam power, crushers, screening apparatus, derricks, dump cars, side tracks, switches, city yards, teams, dock frontage in the down town district, elevator bins, steam shovels and conveyors, canal barges, tags, tools, etc., in order that the product may be handled cheaply and in large quantities so that it may be wholesaled at a fair profit.

I am informed the Sanitary District as such has no power to so equip, handle and carry on the business, but that it has the right to deal with and dispose of any surplus material on hand, and to clean the spoil bank, so that the valuable right of way may be utilized.

I have at command and am prepared to furnish all the machinery, implements of the trade and other facilities for handling the business for you in the largest way practicable, and to successfully market all the merchantable stone on the spoil bank not required by you for your own work, and to carry on the same without interfering in any way with your contractors or your work. At first I will confine operations to some completed section of the canal and ship the product by rail or by the Chicago and Michigan Canal. When the Drainage Canal is opened more extended operations will ensue.

I will assume and pay the entire cost of the necessary plant, all salaries, wages, rents, taxes, cartage, assume and pay all bad debts, insurance, fire and employers liability, accidents and all other liabilities costs and charges whatsoever, except freight as hereinafter provided, for a period of ten years or until the merchantable stone shall have been exhausted. I will push the business in a faithful and energetic manner, and will give a bond in such sum as you may require not exceeding \$50,000. to carry out my contract and pay the percentage of gross receipts to your treasurer bi-monthly. This obligation to be binding on my heirs, successors and assigns. I am to have the free use of the right of way so far as necessary to carry on operations, and such other facilities as you may grant from time to time.

From the gross receipts from any and all sales deduct the amount of money paid on account of freight by canal or rail thereon then pay to the said Sanitary District ten per cent. of such remaining sum as full compensation for its proportion of the profit upon said stone sold. No other or further charge or deductions shall be made against the interest or profit of said Sanitary District, except the freight charges, as herein specifically set forth.

The Auditor of said Sanitary District shall have at all times access to my books and vouchers for the purpose of verifying the accounts rendered.

I will render at the close of each month a statement of the amount of stone sold or otherwise disposed of and to whom,



together with the several amounts received therefor, and I will, on or before the 15th day of every second month pay to your treasurer the amount due the Sanitary District for the two preceding months.

The stone shall be sold and disposed of so far as practicable in large quantities to manufacturers and dealers in stone, and every reasonable effort will be made to so handle it. In case, however, such dealers refuse to handle the stone or no satisfactory arrangement can be made with them to handle the stone, then and in that event I shall be permitted to go into the market and sell the various stone at the best terms obtainable. It being understood that at all times the regular manufacturers and dealers shall be first considered and given such preference in terms and prices as their position in the trade may entitle them.

I am, gentlemen,

Very truly yours,

(Signed)

HOWARD H. GROSS."

APPLICATION FOR STREET RAILWAY  
RIGHT OF WAY ON KEDZIE AVE.

The Clerk presented a communication, accompanied by plat, from the Central Rapid Transit Company, by John H. Madden, Attorney, asking the consent of the District for right of way for surface street railway in front of District property on Kedzie Avenue, as set forth in the communication; and the communication was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the communication be ordered printed and, with accompanying plat, referred to the Committee on Judiciary.

The motion prevailed unanimously, and the communication was ordered

printed and with accompanying plat, so referred.

The following is

THE COMMUNICATION:

"CHICAGO, July 12, 1894.

*To the Honorable Board of Trustees, Sanitary District of Chicago:*

DEAR SIR: We shall consider it an especial favor if you will have the kindness to assign to us for the use of a surface passenger street railway, the right of way in front of your property situate on both sides of Kedzie avenue and between the tracks of the Chicago, Santa Fe & California Railway Company on the north, and of the Chicago, Madison & Northern Railway Company on the south, with a frontage of 908 7 feet on the east side of said Kedzie avenue, and a frontage of 861.7 feet on the west side of said avenue; making a total frontage of 1873.4 feet, more or less; the said property lying in Sections 35 and 36, in T. 39 N., R. 13 E.

We have already secured the full majority of the right of way on Kedzie avenue from Thirty-first to Eighty-seventh streets, a distance of 7 miles, with the exception of the mile between Thirty-first and Thirty-ninth streets. Your kind assignment of the frontage above described will complete this mile.

Very truly yours,

(Signed) CENTRAL RAPID TRANSIT CO.

JOHN H. MADDEN,

(Accompanied by plat.) *Attorney."*

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Kelly, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

JULY 25, 1894.

#### OFFICIAL RECORD.

(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)

#### REGULAR MEETING.

The two hundred and thirty-second regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, July 25, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7), and subsequently Mr. Gilmore, making a total of eight (8) members, were present.

#### MINUTES.

The minutes of the regular meeting

held July 18, 1894, were approved as printed, on motion of Mr. Eckhart, seconded by Mr. Boldenweck.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### Construction Account—

Griffiths & McDermott, (Sec. 1, July 16, 1894)	\$ 506 76
McArthur Bros. (Sec. 2, July 16, 1894).....	4,055 62
Gilman & Co. (Sec. 3, July 16, 1894).....	6,092 10
McArthur Bros. (Sec. 4, July 16, 1894).....	9,029 48
The Qualey Construc- tion Co. (Sec. 5, July 16, 1894).....	4,150 13
Mason, Hoge & Co. (Sec. 6, July 16, 1894)	4,087 13
Mason, Hoge & Co. (Sec. 7, July 16, 1894)	7,284 81

Mason, Hoge, King & Co. (Sec. 8, July 16, 1894) .....	\$19,090 09
Halvorson, Richards & Co. (Sec. 9, July 16, 1894) .....	8,821 40
E. D. Smith & Co. (Sec. 10, July 16, 1894) .....	18,060 00
Mason, Hoge & Co. (Sec. 11, July 16, 1894) .....	15,871 68
Mason, Hoge & Co. (Sec. 12, July 16, 1894) .....	11,511 06
Mason, Hoge & Co., (Sec. 13, July 16, 1894) .....	18,640 78
Smith & Eastman (Sec. 14, July 16, 1894) .....	9,183 12
Heldmaier & Neu (Sec. B, July 16, 1894) .....	29,701 83
Western Dredging & Improvement Co. (Sec. C, July 16, 1894) .....	5,292 38
E. D. Smith & Co. (Sec. D, July 16, 1894) .....	8,097 41
Ricker, Lee & Co. (Sec. F, July 16, 1894) .....	2,866 36
Gahan & Byrne (Sec. G, July 16, 1894) .....	6,684 09
Gahan & Byrne, (Sec. H, July 16, 1894) .....	1,735 65
Christie & Lowe (Sec. I, July 16, 1894) .....	10,421 25
Christie & Lowe (Sec. K, July 16, 1894) .....	8,367 19
The Heidenreich Co. (Sec. L, July 16, 1894) .....	4,900 62
The Heidenreich Co. (Sec. M, July 16, 1894) .....	3,394 96
McMahon & Montgomery Co. et al. (Sec. O, July 16, 1894) .....	10,297 35
The Qualey Construction Co. (Sec. 5, extra work, spoil removed from existing banks, July 16, 1894) .....	883 17
Western Stone Co. (Sec. 10, extra work, maintenance track at Quarry No. 5, July 16, 1894) .....	124 50
Heldmaier & Neu (Sec. A, extra work, completing levee, 692 to 710, July 16, 1894) .....	2,592 00
	<u>\$231,542 92</u>

## ENGINEERING DEPARTMENT.

J. H. Spengler (expense, photographs) \$	12 36
U. W. Weston, (traveling) .....	31 60
U. W. Weston, (traveling) .....	28 75
H. A. Miller, (traveling) .....	35 80
F. G. Ewald (traveling) .....	11 28
	<u>\$ 119 79</u>

## LAW DEPARTMENT.

A. C. McClurg & Co. (stationery) .....	\$ 2 25
P. F. Pettibone & Co. (stationery) .....	1 42

James M. Purcell, (stenographer) .....	\$ 11 05
Orrin N. Carter, (expense) .....	9 26
Orrin N. Carter, (expense) .....	353 73
Orrin N. Carter, (expense) .....	402 20
	<u>\$ 779 91</u>

## LAW DEPARTMENT.

## Land Account—

Haley & O'Donnell, (accrued taxes, Harris-Foley land) .....	\$ 8 52
Michael Fitzpatrick, (accrued taxes, Fitzpatrick land) .....	42 83
	<u>\$ 51 35</u>

## GENERAL ACCOUNT.

The Economist Publishing Co. (advertising 3d issue bonds)	\$ 36 00
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## POLICE DEPARTMENT.

A. F. Risser & Co. (harness) .....	\$ 50 00
C. H. Hanson, (police stars) .....	45 00
Work Bros. Co. (police coats and helmets) .....	129 75
Marshall Field & Co. (blankets) .....	19 24
	<u>\$ 243 99</u>

Grand total .....

\$232,773 96

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, (except as to Western Stone Company voucher for \$124.50) Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 927, Police Department ("Aermotor") .....	\$168 74
No. 1059, Clerical Department (stationery and postage stamps) .....	38 75

Total .....

\$207 49

Mr. Russell, seconded by Mr. Boldenweck moved that Requisitions No. 927,



for the Police Department, and No. 1059, for the Clerical Department, as read and shown above, be allowed.

On roll call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Gilmore, Kelly, Russell and Wenter—seven (7). Excused and not voting—Mr. Eckhart—one (1). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 927, for the Police Department, and No. 1059, for the Clerical Department, as read and shown above, allowed.

#### WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending July 21, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“CHICAGO, July 25, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending July 21, 1894, as the same have been reported to me:

Engineering Department.....	131
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	57

Total employes..... 201

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

#### MESSAGE ON APPOINTMENT OF SPECIAL POLICE.

The President presented a message, stating that about July 6, 1894, he had given orders for the appointment of twelve (12) special police officers, as set forth in the message, and requesting that his action in the premises be approved; and the message was read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the message be adopted, ordered printed and placed on file, and the action of the President, as stated therein, be approved.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE MESSAGE:

“CHICAGO, July 25, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On or about the 6th or 7th inst., after a consultation with the Marshal of the District and members of your Honorable Body, and with the consent and approval of the Police Board, I gave orders to have twelve (12) additional men placed in the service of the Police Department, as special officers, their term to last until August 1, 1894.

The necessity for the placing of said men at that time is undoubtedly obvious to the members of the Board, and I therefore request your approval of my action in the premises.

Very respectfully submitted,

(Signed) FRANK WENTER,  
President.”

#### ADDITIONAL REPORT ON MAINTENANCE OF QUARRY NO. 5 TRACK.

Mr. Eckhart, Chairman, presented an additional report from the Joint Committee on Finance and Engineering, with reference to the maintenance of the Western Stone Company track at Quarry No. 5, and recommending the payment to the said Company of the balance of cost of said work to June 6, 1894, under agreement and conditions as set forth in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed, and placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—Mr. Altpeter—one (1).

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

The following is

#### THE REPORT:

“CHICAGO, July 26th, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On June 13, 1894, the

Joint Committee on Finance and Engineering presented a bill of the Western Stone Company, for \$1,666.50, for work done in keeping in repair the railroad track at Quarry No. 5, up to and including March 27, 1894, and recommended at that time the payment of said claim, with the understanding that on and after the date of June 6, 1894, all repairs and work done on and after that time be done under the direction of the Chief Engineer of the District, and that said work be kept in repair by the District up to and including October 1st of this year and no further.

Since the payment of the bill referred to, the Western Stone Company have presented to the Chief Engineer an additional bill covering the time from March 27 up to and including June 6, 1894, amounting to \$665.00.

Your Committee now recommend that this amount be now paid in pursuance of the agreement entered into by the payment of the previous amount of \$1,666.50, being in full of all work done on said track and all claims against the District for the said work up to and including June 6, 1894, after which time, and to October 1, 1894, the conduct and supervision of the work is to be under the direction of the Chief Engineer of the District.

All of which is

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.  
L. E. COOLEY,  
WM. BOLDENWECK,  
W. H. RUSSELL,  
THOMAS KELLY,

*Joint Committee on Finance and Engineering."*

#### REPORT ON CLAIM OF DR. RE FOR STABLE.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to and accompanied by a communication from Dr. N. Re, presented and referred to that Committee at the meeting held March 21, 1894, (page 1834 of the Proceedings) making claim for value of a stable near Willow Springs, said to have been removed by order of the Chief Engineer—recommending that said claim be not allowed; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly,

moved that the report be adopted, ordered printed and, with enclosure, placed on file, and the recommendation made in the report concurred in.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

"CHICAGO, July 25, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Joint Committee on Finance and Engineering have duly considered the claim of Dr. Nicholas Re for the value of a stable near Willow Springs, said to have been removed by order of the Chief Engineer of the District, which claim was presented to the Board and referred to this Committee at the meeting held March 21, 1894 (page 1834 of the Proceedings.)

Your Committee respectfully return the said claim herewith, with the recommendation that it be not allowed.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.  
L. E. COOLEY,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,  
W. H. RUSSELL,  
THOMAS KELLY,

*Joint Committee on Finance and Engineering."*

(One (1) enclosure.)

#### REPORT ON MONTHLY REPORT OF ENGINEERING DEPARTMENT FOR JUNE, 1894.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by the monthly report of the Engineering Department for the month of June, 1891, presented and referred to that Committee at the meeting held July 18, 1894, (page 2045 of the Proceedings) and concerning delinquent sections and the condition of work on the Main Channel, and making certain recommendations with reference thereto; and the report was read.

Mr. Cooley, seconded by Mr. Russell, moved that the report be adopted, ordered printed, and, with enclosure, placed



on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (-). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.

The following is

#### THE REPORT:

“CHICAGO, July 25, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance has considered the report of the Chief Engineer and Superintendent of Construction on the progress of the work, referred at the meeting held July 18, 1894, (page 2045 of the Proceedings).

The progress of the work as a whole is most gratifying, exceeding in the aggregate, for the month of June, the contract requirements. On several of the sections the progress is such as to promise their completion in 1895, while others are sadly delinquent. The delinquencies, however, are such as it should be feasible to correct, and your Committee believe that all of the work on the Channel can be completed in 1896, with prompt and judicious action on the part of the Board.

Between Chicago and Summit, special comment is not called for, further than that much time is being consumed in experiments on Sections G and H. Your Committee is not disposed to limit experimental work further than is necessary to insure the installation of plant adequate to keep up progress when team work shall be exhausted. The providing of proper equipment on these sections will soon be a matter of concern, and the experimentation should reach an early conclusion.

Sections E and F are now under consideration by a Special Committee. These sections are not sufficiently behind to embarrass the work, should an adjustment be reached. Section C has some 210,000 cubic yards of muck, the removal of which is the occasion of concern, in view of the progress of work on Section B. Sections A and B are making all practicable progress, in view of the muck to be removed; but it will require the utmost energy to remove all the soft material on

Sections A, B and C, and unwater the same prior to the winter season.

Work on Section 1 will not be under way much before August 1st, but will require the most energetic pushing to complete the levee on that section and on Section A during the season. Work on Sections 2, 3 and 4 is progressing, but your Committee believe that far more vigor should be infused into the work on these sections, in order to bring up the back work.

The work on Section 5 is in very unsatisfactory condition, and unless marked improvement is soon apparent, will require the early attention of the Board. Work on Section 6 is progressing fairly, and better progress is expected after the glacial drift is removed.

The rock sections are all progressing satisfactorily, except Section 14, where elaborate experiments, with new hoisting apparatus, seem to have failed. It will require the most vigorous action on the part of the contractors for this section to provide proper equipment and make good the time lost.

Your Committee would recommend that the Engineering Department be instructed to take the most vigorous action, with a view to correcting the delinquencies, and especially on that class of work which should be completed during the open weather.

Your Committee would also call attention to the fact that there is still considerable uncompleted work in the river diversion and in the levee adjacent thereto, and we urge that the Chief Engineer be instructed to forthwith prosecute all of this work vigorously, to the end that said work may be finally completed during favorable weather. In some cases, further authority may be required of this Board, and this should be taken under immediate advisement.

The report of the Chief Engineer and Superintendent of Construction for the month of June, 1894, is returned herewith.

Very respectfully submitted,

Signed) L. E. COOLEY,  
Chairman.

WM. BOLDENWECK,

B. A. ECKHART,

THOMAS KELLY,

JOHN J. ALTPETER,

W. H. RUSSELL,

*Joint Committee on Engineering and Finance.*

(One (1) enclosure.)



## SEMI-MONTHLY PAYMENTS BY CONTRACTORS.

Mr. Altpeter, Chairman, presented a report from the Committee on Labor, transmitting resolution with reference to the semi-monthly payment, by contractors, of employes working on the Main Channel, and recommending the adoption of the same; and the report and accompanying resolution were read.

Mr. Altpeter, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed and placed on file, the recommendation made therein concurred in, and the accompanying resolution adopted.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—Mr. Cooley—one (1).

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendation made therein concurred in, and the accompanying resolution adopted.

The following is

## THE REPORT, WITH ACCOMPANYING RESOLUTIONS:

“CHICAGO, July 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Labor herewith transmit resolutions touching the question of semi-monthly payments of the employes of the contractors of the District and recommend their adoption as the sense of your Honorable Body.

Respectfully submitted,

(Signed) JOHN J. ALTPETER,  
Chairman.

THOMAS KELLY,

B. A. ECKHART,

*Committee on Labor.”*

(Accompanied by resolutions.)

## THE RESOLUTIONS:

“WHEREAS, Estimates of the amounts of work done on the several contract sections of the District are made twice each month and payments made to the contractors on such semi-monthly estimates; and

WHEREAS, Many of the contractors are making monthly payments only to their workmen, and the length of time between payments is a matter of hardship

to many of the employes, causing them frequently to anticipate the payment of wages by borrowing upon or pledging their time checks at excessive rates of discount; and

WHEREAS, All of said contractors must have understood when they entered into contract with the District that the intention of said contract was that employes thereunder should be paid at least twice each month; now, therefore, be it

*Resolved*, That it is the sense of this Board that the contractors of the District should pay their employes at least twice each month, and that we request all contractors to arrange to pay their men hereafter semi-monthly; and be it further

*Resolved*, That the Clerk send a copy of these resolutions to every contractor of the District.”

## SPECIAL COMMITTEE REPORT ON CLAIMS FOR HARD MATERIAL ON SECTIONS C, D, E AND F.

Mr. Wenter, Chairman, made a verbal report for the Special Committee on Settlement of Difficult Material Controversy, with reference to the claims for hard material said to have been encountered in excavation on Sections C, D, E and F, stating that the Committee had had several sessions and had considered the matter at length, but were not as yet ready to report definite conclusions.

## APPLICATION FOR STREET RAILWAY RIGHT OF WAY ON KEDZIE AVENUE.

The Clerk presented a communication from the Chicago General Street Railway Company, by L. E. McGann, President, asking the consent of the District for right of way for surface street railway in front of District property on Kedzie avenue, as set forth in the communication; and the communication was read.

Mr. Kelly, seconded by Mr. Altpeter, moved that the communication be ordered printed and referred to the Committee on Judiciary.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

## THE COMMUNICATION:

“CHICAGO GENERAL STREET R’y Co., }  
General Office,  
CHICAGO, July 20, 1894. }

*To the Honorable Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—This company would like

to extend its road, now partly constructed on Kedzie avenue, between Twenty-second street and Thirty-first street, to connect with the Archer avenue cars at Thirty-eighth street, and therefore respectfully petition your Honorable Body to sign for us a petition to the Common Council to grant us this right.

Respectfully submitted,

(Signed) L. E. MCGANN,  
President."

LEASE OF "PRIVATE ROAD" EAST AND WEST OF KEDZIE AVENUE.

Mr. Kelly presented an order, accompanied by two leases, in duplicate, with Patrick E. McDonnell and with Patrick E. McDonnell and Thomas Cusack, of so-called "private road," east and west of Kedzie avenue, connecting with the tow-path of the Illinois and Michigan Canal, and authorizing and directing the President and Clerk to execute the said leases on behalf of the District, as provided in the order; and the order was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Eckhart, Gilmore, Kelly, Russell and Wenter—six (6). Nays Messrs. Altpeter and Cooley—two (2).

Upon which result the President declared the motion carried, the order adopted, and the President and Clerk authorized and directed to execute the said accompanying leases on behalf of the District, as provided in the order.

The following is

#### THE ORDER:

"*Ordered*, That the President and Clerk be and they are hereby authorized and directed to accept for and execute on behalf of the Sanitary District of Chicago the accompanying leases with Patrick E. McDonnell of the part of so called "private road" connecting Kedzie Avenue with the tow-path of the Illinois and Michigan Canal, and with Patrick E. McDonnell and Thomas Cusack of the part of said "road" west of Kedzie Avenue; and pay the rentals as therein provided."

(Accompanied by two (2) leases in duplicate.)

#### ORDINANCE FOR TAX LEVY OF 1894.

Mr. Eckhart, Chairman, presented from the Committee on Finance, an ordinance for levying the taxes for the year 1894, for the corporate purposes of the District; and the ordinance was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved the passage of the ordinance.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the ordinance passed.

The following is

#### THE ORDINANCE:

"*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

SECTION 1. That the sum of one million five hundred thousand (\$1,500,000) dollars be and the same is hereby levied and assessed on the real and personal property within the Sanitary District of Chicago, subject to taxation according to the valuation of said property, as the same is assessed and equalized for State and County purposes for the year 1894; the taxes levied and assessed under this ordinance being for the corporate purposes of the Sanitary District of Chicago.

SEC. 2. The Clerk of this District is hereby directed to certify on or before the second Tuesday of August, 1894, to the County Clerk of Cook County, the amount required to be raised by tax, pursuant to this ordinance, and to that end to file with the said County Clerk a copy of this ordinance duly certified by the Clerk of said District.

SEC. 3. This ordinance shall take effect and be in force from and after its passage."

#### ADJOURNMENT.

On motion of Mr. Cooley, seconded by Mr. Russell, the Board then adjourned.

THOS. F. JUDGE,

Clerk.

July 25, |

—2069—

| 1894.



# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

AUGUST 1, 1894.

#### OFFICIAL RECORD.

*(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and thirty-second regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, August 1, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7), and subsequently Mr. Gilmore, making a total of eight (8) members, were present.

#### MINUTES.

The minutes of the regular meeting

held July 25, 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Boldenweck.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (July, 1894).....	\$ 500 00
Eng. Dept., Div. No. 1, (July, 1894).....	7,829 29
Eng. Dept., Div. No. 1, Tow-path roll (July, 1894).....	330 00
Eng. Dept., Div. No. 2, (July, 1894).....	2,142 40
Eng. Dept., Div. No. 2, Special Survey roll, (July, 1894).....	692 00
Eng. Dept., Div. No. 3, (July, 1894).....	1,953 00
Eng. Dept., Div. No. 4, (July, 1894).....	340 00

Eng. Dept., Discharged men's roll, (July, 1894).....	\$12 48	
		\$13,799 17
Clerical Dept., Clerk's roll, (July, 1894).....		891 66
Law Dept., Attorney's roll, (July, 1894).....	\$ 1 286 66	
Law Dept., Joliet roll, (July, 1894).....	458 33	
		\$ 1,744 99
Treasury Dept., Treasurer's roll, (July, 1894).....		166 66
General Account, General roll, (July, 1894)	\$ 218 66	
General Account, Trustees' roll, (July, 1894).....	2 333 34	
		\$ 2,552 00
Police Dept., Marshal's roll, (July, 1894).....	\$ 3,786 65	
Police Dept., special police officers' roll, (July, 1894).....	416 65	
		\$ 4,203 30
Total.....		\$23,357 78

## ENGINEERING DEPARTMENT.

<i>Construction Account—</i>	
Western Stone Co. (Sec. 10, extra work, maintaining track at Quarry No. 5 to June 6, 1894, July 25, 1894)	\$ 665 00

## CLERICAL DEPARTMENT.

P. F. Pettibone & Co. (stationery).....	\$ 13 85
C. F. W. Junge, (postage stamps).....	20 00
	\$ 33 85

## LAW DEPARTMENT.

Jos. Donnersberger (expert, right of way services, July, 1894). \$	300 00
W. D. Barge, (legal services) .....	356 00
Chicago Telephone Co. (telephone service) ..	33 30
John O'Connor, (abstract).....	25 00
Thos. Hennebry, Sheriff, Will Co. (service).....	4 30
Frank Vander Bogaert, Clerk, Circuit Court of Will County, (fees)	10 00
Frederic J. Squibb, (stenographer) .....	106 25
Waukesha Hygeia Mineral Springs Co. (water) .....	\$ 75
Orrin N. Carter, (expense).....	107 05
	\$ 945 65

## GENERAL ACCOUNT.

S. D. Childs & Co. (re-pairing seal).....	\$ 1 25
Western Bank Note & Engraving Co. (engraving 4 per cent bonds).....	1,255 00
Chicago Edison Co. (electric lighting)...	21 62
The Chicago Deposit Vault Co., (rent of offices, May-July '94)	1,875 00
John F. Higgins, (printing proceedings, etc., July, 1894)	272 30
Orrin N. Carter, (lease, McDonnell & Cusack "private roads").....	175 00
	\$ 3,600 17

## POLICE DEPARTMENT.

Martin Emerich Out-fitting Co. (bedding) \$	31 87
Wm. Hooper, (horse) ..	100 00
C. J. Green, (board for special officers).....	30 50
Mrs. W. C. Vorce, (board for special officers).....	97 63
	\$ 260 00

Grand total..... \$28,862 45

Mr. Boldenweck, seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending July 28, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

"CHICAGO, August 1, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending July

28, 1894, as the same have been reported to me:

Engineering Department.....	128
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	59

Total employees..... 200

Respectfully submitted,

(Signed)

THOS. F. JUDGE,

*Clerk."*

#### PURCHASE OF "GODFREY" LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from Austin Godfrey of certain right of way lands in Will County, and authorizing and directing the Clerk to pay for the said right of way of lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Austin Godfrey, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Austin Godfrey, on the voucher of the Attorney, for the said right of way lands, as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, August 1st, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering have reached an agreement with Austin Godfrey, for

the purchase from him for the corporate purposes of this District of the land hereinafter described for the sum of four thousand one hundred and twenty-five (\$4,125.00) dollars.

Your Committee therefore recommend that the Clerk of this District be authorized and directed to pay, on the voucher of the Attorney, to said Austin Godfrey the sum of four thousand one hundred and twenty-five (\$4,125.00) dollars in full payment for the following described land, to-wit:

That part of the southwest quarter (S. W.  $\frac{1}{4}$ ) of Section twenty-seven (27), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, bounded and described as follows: Beginning at the southwest (S. W.) corner of said section and running thence north (N) along the west (W) line thereof seven hundred and thirty-three and seventeen one-hundredths (733.17) feet; thence northeasterly to a point on a line parallel with and eight hundred and twenty-seven and twenty-six one-hundredths (827.26) feet south (S) of the east (E) and west (W) center line of said section, which is two hundred and ninety-six and forty-seven one hundredths (296.47) feet east (E) of the west (W) line of said section; thence east (E) along said line to the westerly margin of the Desplaines River; thence southeasterly and at right angles to the general course of said river there, to the center thread of the current of said river; thence southwesterly along said center thread (passing to the eastward of certain islands in said river) to its intersection with a line drawn southeasterly from the point of contact of the south (S) line of said section with the westerly margin of said river, and at right angles to the general course of said river there; thence northwesterly along said line to said westerly margin; thence west (W) along said south (S) line to the point of beginning.

Also, that part of the southeast quarter (S. E.  $\frac{1}{4}$ ) of Section twenty-eight (28), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, lying south (S) and east (E) of a line drawn from a point in the south (S) line thereof two hundred (200) feet west (W) of the southeast (S. E.) corner thereof to a point in the east (E) line thereof seven hundred and thirty-three and seventeen one-hundredths (733.17) feet north (N) of said southeast (S. E.) corner.

All of said premises lying and being



situate in the County of Will in the State of Illinois.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*

L. E. COOLEY,  
THOMAS KELLY,  
W. H. RUSSELL,  
JOHN J. ALTPETER,  
WM. BOLDENWECK,

*Joint Committee on Finance and Engineering."*

ORDINANCE FOR THIRD ISSUE OF 5% BONDS  
—\$3,000,000—AND ORDER FOR ADVERTISING AND PRINTING OF SAME.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, transmitting an ordinance providing for the issue of three million (\$3,000,000) dollars of five (5) per cent bonds, for the corporate purposes of the District, being the third issue and for repealing the ordinance passed at the meeting held June 6, 1894 (page 1981 of the Proceedings), which provided for the issue of three million (\$3,000,000) dollars of four (4) per cent bonds; said report also transmitting an order authorizing and directing the Clerk, with the Committee on Finance, to have said five (5) per cent bonds advertised, engraved and printed, as provided in the order; and the report, and the accompanying ordinance and order, were read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report, with accompanying ordinance and order, be ordered printed and placed on file, the recommendations made in the report concurred in, and the accompanying order adopted.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report, with accompanying ordinance and order, ordered printed and placed on file, the recommendations made in the report concurred in, and the accompanying order adopted.

Mr. Eckhart, seconded by Mr. Boldenweck, then moved the passage of the ordinance.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley,

Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the ordinance passed.

The following is

THE REPORT, WITH ACCOMPANYING  
ORDINANCE AND ORDER:

"CHICAGO, August 1, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance submits herewith an ordinance providing for the issue of three million (\$3,000,000) dollars of five (5) per cent bonds, for the corporate purposes of the Sanitary District, as provided in the ordinance.

Your Committee also transmits herewith a form of order, authorizing and directing the Clerk, in conjunction with the Committee on Finance, to advertise and make the necessary arrangements for the engraving and printing of said issue of bonds.

Your Committee respectfully recommend the adoption of the accompanying ordinance, and the passage of the accompanying order.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*

W. H. RUSSELL,  
THOMAS KELLY,

*Committee on Finance."*

(Accompanied by ordinance and order.)

The following is

THE ORDINANCE:

*"Be it ordained by the Board of Trustees  
of the Sanitary District of Chicago:*

SECTION 1. That an ordinance passed the sixth day of June, A. D. 1894, providing for the issuing of bonds to the amount of three million (\$3,000,000) dollars and for the circulation and payment of the same, be and the same is hereby repealed.

SEC. 2. That there be borrowed the sum of three million (\$3,000,000) dollars for the corporate purposes of the Sanitary District of Chicago, and that interest bearing coupon bonds be issued therefor to the amount of three million (\$3,000,-

000) dollars by said Sanitary District of Chicago, said bonds to be of the denomination of one thousand (\$1,000) dollars each, all to bear date of the first day of August, 1894, one hundred and fifty thousand (\$150,000) dollars of the principal of said bonds to be payable on the first day of July of the year 1895, and of each of the years thereafter following until and including the year 1914; said bonds to be numbered consecutively from five thousand and one (5,001) to eight thousand (8,000) inclusive, and to bear interest at the rate of five (5) per centum per annum from the date thereof. Interest to be payable on the first day of January and of July in each year and to be evidenced by coupons attached to each bond, to be numbered consecutively, each coupon to bear the number of the bond to which it is attached, and to be for the sum of twenty-five (\$25.00) dollars, (except the first coupon on each bond of this issue which shall be for the sum of twenty and eighty-three one-hundredths (\$20.83) dollars) and the first or number one (1) coupon of each bond to be payable on the first day of January, 1895, and the next or number two (2) coupon on each bond to be payable on the first day of July, 1895, and so on, each succeeding coupon being payable six (6) months after the preceding one, both principal and interest to be payable at the office of the Treasurer of the Sanitary District of Chicago, interest to be payable only upon presentation and surrender of the proper interest coupon. Such bonds shall be signed on behalf of the Sanitary District of Chicago, by the President of the Board of Trustees and countersigned by the Clerk thereof, and attested by the seal of said Sanitary District.

SEC. 3. That said bonds, when they are executed, shall be deposited with the Treasurer of said District for safe keeping, and shall be sold at such price and for such rates as the Board of Trustees of this District shall from time to time determine and direct, and the proceeds arising from the sale of said bonds shall be received by the Treasurer of said District as such; and shall be used for the corporate purposes thereof, as may be directed from time to time by the Board of Trustees.

SEC. 4. That in each of the herein-after mentioned years there shall be levied and assessed on the taxable property within said District, the sums respectively, as follows:

For the year 1894, three hundred thousand (\$300,000) dollars.

For the year 1895, two hundred and ninety-two thousand, five hundred (\$292,500) dollars.

For the year 1896, two hundred and eighty-five thousand (\$285,000) dollars.

For the year 1897, two hundred and seventy-seven thousand, five hundred (\$277,500) dollars.

For the year 1898, two hundred and seventy thousand (\$270,000) dollars.

For the year 1899, two hundred and sixty-two thousand, five hundred (\$262,500) dollars.

For the year 1900, two hundred and fifty-five thousand (\$255,000) dollars.

For the year 1901, two hundred and forty-seven thousand, five hundred (\$247,500) dollars.

For the year 1902, two hundred and forty thousand (\$240,000) dollars.

For the year 1903, two hundred and thirty-two thousand, five hundred (\$232,500) dollars.

For the year 1904, two hundred and twenty-five thousand (\$225,000) dollars.

For the year 1905, two hundred and seventeen thousand, five hundred (\$217,500) dollars.

For the year 1906, two hundred and ten thousand (\$210,000) dollars.

For the year 1907, two hundred and two thousand, five hundred (\$202,500) dollars.

For the year 1908, one hundred and ninety-five thousand (\$195,000) dollars.

For the year 1909, one hundred and eighty-seven thousand, five hundred (\$187,500) dollars.

For the year 1910, one hundred and eighty thousand (\$180,000) dollars.

For the year 1911, one hundred and seventy-two thousand, five hundred (\$172,500) dollars.

For the year 1912, one hundred and sixty-five thousand (\$165,000) dollars.

For the year 1913, one hundred and fifty-seven thousand, five hundred (\$157,500) dollars.

For the purpose of paying the principal and interest of the bonds issued under this ordinance, said sums so levied being sufficient to pay the interest on said bonds as it falls due, and also to pay and discharge the principal thereof as the same shall fall due, and the Clerk of this District is hereby directed in the



year 1894, and in each of the years thereafter until the year 1913 to include the amount required by this ordinance to be raised by taxes in each of said years respectively, in the amount which shall be certified to the County Clerk in each of said years as the amount required to be raised by taxation in said District.

SEC. 5. Bonds to be issued in pursuance of this ordinance may be registered with the Treasurer of said District, and after such registry no transfer shall be valid except upon the books of said Treasurer, but the registry thereafter upon the books of the Treasurer of a transfer to bearer, shall restore transferability by delivery.

Said bonds shall continue subject to successive registrations and transfers to bearer as aforesaid, at the option of each holder.

SEC. 6. That the credit and resources of the Sanitary District of Chicago be and the same are hereby irrevocably pledged to the payment of the bonds which shall be issued in pursuance of this ordinance, and the interest thereon as it shall fall due.

SEC. 7. This ordinance shall take effect and be in force from and after its passage."

The following is

#### THE ORDER:

"*Ordered*, That the Clerk of this District be and he is hereby directed to advertise, under the direction of the Committee on Finance, for the purchase of three million (\$3,000,000) dollars of five (5) per cent bonds of the Sanitary District of Chicago, (being the third issue of the bonds of said District) to be issued in accordance with the ordinance passed this first day of August, A. D. 1894, and that the Clerk also, under the direction of said Committee, make the necessary arrangements for the engraving and printing of said issue of bonds."

#### ORDINANCE GOVERNING CARRYING OF CONCEALED WEAPONS.

Mr. Gilmore, Chairman, presented a report from the Committee on Health and Public Order, transmitting ordinance with reference to the carrying of concealed weapons, prepared in pursuance of an order passed at the meeting held June 6, 1894, (page 1987 of the Proceedings); and the report and accompanying ordinance were read.

Mr. Gilmore, seconded by Mr. Altpeter,

moved that the report and ordinance be adopted, ordered printed and placed on file.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the report and accompanying ordinance adopted, ordered printed and placed on file.

The following is

#### THE REPORT, WITH ACCOMPANYING ORDINANCE:

"CHICAGO, August 1, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Health and Public Order, to whom was referred on June 6, 1894, the matter of drafting rules and regulations in regard to carrying concealed weapons, beg leave to report that they have considered the matter in conjunction with the Marshal and the Attorney and have drafted an ordinance covering the question which they herewith present and recommend its adoption by this Board.

Respectfully submitted,

(Signed) A. P. GILMORE,  
*Chairman.*

JOHN J. ALTPETER,  
*Committee on Health and Public Order."*

The following is

#### THE ORDINANCE:

"An ordinance prohibiting the carrying of concealed weapons:

*Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

SECTION 1. No person shall, within the limits of the supervision of the police force of the Sanitary District of Chicago, carry or wear under his clothes or concealed about his person, any pistol, bowie knife, dirk, dagger or any other dangerous or deadly weapon.

SEC. 2. Any such weapon or weapons duly adjudged by any Police Magistrate or Justice of the Peace to have been worn or carried by any person in violation of the first section of this ordinance shall be forfeited or confiscated to said Sanitary District of Chicago, and shall be so adjudged.



SEC. 3. Any Sanitary District policeman may, within the limits of the right of way of said Sanitary District of Chicago and within one and one-half miles on each side of its Main Drainage Channel, without a warrant, arrest any person whom such policeman may find in the act of carrying or wearing under his clothes or concealed about his person any pistol, bowie knife, dirk, dagger or any other dangerous or deadly weapon, and detain him at any station house, town or village jail until a summons or warrant can be procured on complaint made (under oath or affirmation) for the trial of such person, and for the seizure and confiscation of such of the weapons above referred to as such persons may be found in the act of carrying or wearing under his clothes or concealed about his person.

SEC. 4. Upon complaint made, under oath or affirmation, to any Magistrate or Justice of the Peace within the limits of the supervision of the police of said Sanitary District of Chicago, that any person has been guilty of violating any of the provisions of Section 1 of this ordinance, a summons or warrant shall issue for the summoning or arrest of such offender returnable forthwith; upon the return of such summons or warrant, such Magistrate or Justice shall proceed to the hearing and determination of the matter, and if it shall be adjudged that such person has incurred any of the penalties fixed by this ordinance, such Magistrate or Justice of the Peace shall so adjudge, and order that the weapon or weapons concerning the carrying or wearing of which such penalty shall have been incurred, shall be confiscated to the Sanitary District of Chicago.

SEC. 5. Any person violating any of the provisions of Section 1 of this ordinance shall pay a fine of not less than five dollars nor more than fifty dollars or be imprisoned in the house of correction of the county where convicted for a term not exceeding six months, or both, in the discretion of the magistrate or court before whom such conviction shall be had.

SEC. 6. The prohibition of this ordinance shall not apply to sheriffs, coroners, constables, policemen, or other peace officers while engaged in the discharge of their official duties, nor to persons whose business or occupation may seem to require the carrying of weapons for their protection and who shall have obtained from the Marshal of said Sanitary District license so to do, as hereinafter provided.

SEC. 7. The Marshal of said Sanitary District of Chicago may grant to so many and such persons as he may think proper licenses to carry concealed weapons and may revoke any and all licenses at his pleasure.

SEC. 8. Applications for such licenses shall be made to said Marshal and, when granted, every such license shall state the name, age, occupation and residence of the person to whom it is granted and shall expire on the first day of January next following.

SEC. 9. Any person employed in any manner upon the right of way of said Sanitary District having in his possession any pistol, bowie knife, dirk, dagger or any other dangerous or deadly weapon may deposit such weapon or weapons with said Marshal for safe keeping who shall give a receipt therefor, and on such person ceasing to be employed on said right of way and removing therefrom, such weapon or weapons shall be returned to him upon the presentation by him of said receipt.

SEC. 10. All money received from the payment of fines for any violation of this ordinance assessed by any Magistrate or Justice of the Peace holding court upon the right of way of said Sanitary District shall be applied to the maintenance of hospitals and the care of the sick and disabled workmen employed on the right of way of said Sanitary District under the direction of the President of said Sanitary District and the Sanitary Inspector.

SEC. 11. This ordinance shall take effect and be in force from and after its passage."

SPECIAL COMMITTEE REPORT ON CLAIMS  
FOR HARD MATERIAL ON SECTIONS  
C, D, E AND F.

Mr. Kelly, for the Special Committee on Settlement of Difficult Material Controversy, presented a majority report, stating that that Committee had been unable to reach an agreement with the contractors on Sections C, D, E and F, and recommending that the Chief Engineer of the District be requested to render a decision under the contract on the questions raised in the controversy on difficult material on said Sections C, D, E and F; and the majority report was read.

In connection with the report, Mr. Kelly presented an order, referring the matter in controversy to the Chief Engi-

neer for his decision under the provisions of the contracts between the District and the contractors on Sections C, D, E and F, as set forth in the order; and the order was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the majority report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the order adopted.

Mr. Cooley presented a minority report from the same Committee, recommending a special classification of the material on Sections E and F, as set forth in the report; and the minority report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the minority report be substituted for the majority report.

On roll-call on the motion to substitute the vote stood: Yeas—Messrs. Boldenweck and Cooley—two (2). Nays—Messrs. Altpeter, Eckhart, Gilmore, Kelly, Russell and Wenter—six (6).

Upon which result the President declared the motion to substitute lost.

Mr. Cooley then presented a resolution and order as a substitute for the majority report.

Mr. Cooley, seconded by Mr. Boldenweck, moved the adoption of the resolution and order just presented.

The President declared the resolution and order not germane, and therefore ruled the motion out of order.

Whereupon Mr. Cooley, seconded by Mr. Boldenweck, appealed from the decision of the Chair.

On roll-call on the appeal, the question being, "Shall the decision of the Chair stand?" the vote stood: Yeas—Messrs. Altpeter, Eckhart, Gilmore, Kelly and Russell—five (5). Excused and not voting—Mr. Wenter—one (1). Nays—Messrs. Boldenweck and Cooley—two (2).

Upon which result the President declared the motion carried, and the decision of the Chair sustained.

On roll-call, on the original motion of Mr. Kelly, for the adoption of the majority report, the vote stood: Yeas—Messrs. Altpeter, Eckhart, Gilmore, Kelly, Russell and Wenter—six (6). Nays—Messrs. Boldenweck and Cooley—two (2).

Upon which result the President declared the motion carried, the majority report adopted and, with minority report, ordered printed and placed on file,

the recommendations made in the majority report concurred in, and the order adopted.

The following is

#### THE MAJORITY REPORT:

"CHICAGO, Aug. 1, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Special Committee appointed by you on July 18th, 1894, for the purpose of arriving at definite terms of settlement of matters in controversy on Sections C, D, E and F, beg leave to report:

That they have considered the subject matter in controversy on these sections at great length and with much care, and are unable to agree with the contractors as to the question raised in reference to the work on said respective sections; and we recommend that the Board of Trustees call on the Chief Engineer of the Sanitary District of Chicago to decide the question raised as to the work on Sections C, D, E and F in the respective communications to the Board of Trustees from the Western Dredging & Improvement Co., dated April 3rd, 1894; E. D. Smith & Co., dated April 3rd, 1894; Streeter & Kenefick, dated March 26th, 1894; and Ricker, Lee & Co., dated April 3rd, 1894; as provided in the respective contracts between the Sanitary District of Chicago and said Western Dredging & Improvement Co., E. D. Smith & Co., Streeter & Kenefick and Ricker, Lee & Co.

Respectfully submitted,

(Signed) FRANK WENTER.

*Chairman.*

THOMAS KELLY,

*Special Committee on Settlement of Difficult Material Controversy."*

The following is

#### THE ORDER:

"Ordered. That the question raised by the communications to the Board of Trustees of this District from the Western Dredging & Improvement Company, dated April 3d, 1894, E. D. Smith & Company, dated April 3d, 1894, Streeter & Kenefick, dated March 26th, 1894, and Ricker, Lee & Company, dated April 3d, 1894, with reference to the work of said contractors on the respective sections, C, D, E and F, be and the same is hereby referred to the Chief Engineer for his decision under



the provisions of the contracts between the Sanitary District and said Western Dredging & Improvement Company, E. D. Smith & Company, Streeter & Kenefick, and Ricker, Lee & Company, respectively, the Board of Trustees being unable to agree with the Western Dredging & Improvement Company, E. D. Smith & Company, Streeter & Kenefick, and Ricker, Lee & Company, or any of them, in regard to the question so raised by them, and that the Clerk be directed to furnish said Chief Engineer with a copy of said communications and of this order, and also, to furnish the Western Dredging & Improvement Company, E. D. Smith & Company, Streeter & Kenefick, and Ricker, Lee & Company, respectively, with a copy of this order."

The following is

#### THE MINORITY REPORT:

"CHICAGO, August 1, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I am unable to concur in the report of the majority, as it is based on a program which, in my opinion, violates justice and sound business principles, and defers the completion of the channel at a large increase in cost, and for reasons herein set forth:

#### *Statement.*

The question under consideration is additional compensation for intractable material that was not anticipated by either party to the contract on Sections E and F.

The same question has been raised on Section D. The work has been sufficiently developed to show that no particular equity is involved on this section, and in this conclusion there is no difference of opinion among the members and officers of the Board.

The same remarks will apply also to Section C, so far as the work has yet disclosed the nature of the material. In the absence of test pits it is impossible to judge what the future may bring forth, but as the price is very low, it is entirely safe to say that, should the difficult material be found in large quantities, the present contract will not be completed at the price mentioned therein.

Further consideration of Sections D and C may, therefore, be dismissed. It is not contended that the contractors for Sections E and F can claim a classification or other consideration under the

strict letter of their contracts. The same rule will obtain as has been made heretofore on Sections 1, 2, 3 and 4, so the reference to the Chief Engineer is entirely *pro forma*. On the other hand, it is admitted that the Board may change the price on a whole or a certain class of the material, change the specifications and provide for extra work, on proper cause being shown, and this right has been fully exercised in amending prices on Sections 2, 4 and 5, and in amending contracts on Sections A, B, 6, 14, etc. In fact, did not this power exist, it would be impracticable to carry through a work of this character and magnitude in less than a generation, if at all.

I am disposed to hold further that, where grievous hardship develops on account of errors to which this Board is a party, we are bound to do what equity may require.

Knowledge of the conditions to be met, so far as may be reasonably practicable, is of the essence of the contract. The law protects against inscrutable events. It should not compel a man to bet against a geological formation, and especially when the conditions are capable of prior determination. To put the agent or contractor in the position of a plunger violates all sound principles. Furthermore, such prior knowledge is essential to the protection of the public against excessive prices, and on the other hand, against contracts which cannot be enforced because of prices much below a reasonable business basis.

As a practical business proposition, this Board should adjust contracts that involve abnormal loss, always provided said contracts have been made and carried on in good faith, and the parties thereto are competent, but in doing so it is not proper to allow extra compensation except for large volumes of material that differs radically from the original suppositions.

#### *Proper Price on Sections E and F.*

The Chief Engineer has made elaborate test pits, which set forth sufficiently the character of the material on Sections E and F. These two sections had originally 2,840,000 cubic yards of "glacial drift," of which 840,000 yards had been excavated up to the time the estimates were made from the test pits in the middle of June, leaving 2,000,000 yards in the Main Channel. Of this, 1,000,000 yards consists of intractable material, as indurated clay, requiring blasting, and a mixture of boulders and gravel; 420,000 yards consist of a peculiar quick-



sand, to which the name "bull-liver" has been applied, and 580,000 yards is of a tractable nature.

The spirit of the contracts makes the position of the Chief Engineer a judicial one in controversies legitimately arising under the contracts, and the professional attitude of engineers is at all times one of equity.

For the purpose of reaching a judgment of what the work remaining was properly worth, the 2,000,000 yards above, the Chief Engineer was requested to organize a commission of seven engineers from his department. Four of these, the Chief Engineer, the Superintendent of Construction, the Resident Engineer in charge of the Summit Division, which includes Sections E and F, and the Resident Engineer in charge of the Willow Springs Division, which includes the sections of difficult material heretofore adjusted, agreed on an average valuation of 41 cents per cubic yard for the material remaining. The Assistant Superintendent of Construction failed to fix any valuation. The First Assistant Chief Engineer and the Resident Engineer on the Brighton Division, which includes all the easy digging, agreed on the price of the contract (27½ cents per cubic yard) for Section E, and an advance of 6½ cents, or 30 cents per cubic yard for Section F.

The conclusion of the minority seems to rest on the assumption that it would be impracticable to remove the quicksand by dry digging for any reasonable price, and that dredging methods should, therefore, be resorted to at a less price, provided the waste banks are located adjacent to the channel.

The conclusions of the minority were certainly most reassuring, and to the end of giving them practical application, the Committee obtained from the contractors for these two sections their written assent to an assignment, should parties be found willing to take them off their hands. Therefore, the Committee invited several well-known dredgemen, of extensive and varied experience, to inspect these sections and fix a price thereon at which they were willing to complete the work.

Mr. O. B. Green, of the Green's Dredging Co., made no figure, but suggested "that such a liberal advance in prices should be made as to justify introducing more powerful shovels and other helpful appliances."

Mr. F. Davis, of the Chicago Dredging and Dock Co., figured on 50 cents per

yard, with a possible reduction of 10 cents if the time could be extended, and his conclusion is concurred in by J. A. McMahon of the Illinois Dredging Co.

The writer further consulted Mr. L. W. Bates, who is in charge of hydraulic dredge work on Sections A and B, who has recently visited the large dredging firms on the Atlantic coast and the lake region, several of which, as well as Pacific coast parties, have investigated Sections A and B, and have declined to consider those sections at the prices fixed in the contract, which are higher than those on Sections E and F, with every prospect of much more favorable material. Mr. Bates concludes that Sections E and F cannot be handled by dredging without a large increase in price, and he is disposed to doubt the utility of hydraulic dredging for the quicksand under the conditions.

The writer also understands it to be the view of the dredge men that these sections can be most advantageously worked in the dry, and he believes this to be the general view.

At the request of the Assistant Chief Engineer another firm, which is anxious to make a beginning in the dredging field, was requested to submit a proposition. This was done for Section E, and the figures are much lower, amounting, after correction for the cost of constructing a levee and for plant on hand, to nearly 38 cents per yard. The name of the party and the exact price is withheld by request.

After considering all these propositions the committee concluded that it was not feasible to make an assignment on the basis of dredging as developed in the minority report of the Engineering Commission, and that the prices therein fixed were untenable from a practical standpoint. I think it may be fairly added that the theory of doing these sections more cheaply by dredging is not sustained by any practical knowledge.

After disposing of the contentions of the minority of the Engineering Commission, the committee requested the Chief Engineer to fix prices on the basis of a classification. This was done, the tractable material being rated at the prices named in the contract, the intractable material at 50 cents per cubic yard, and the quicksand at 49.3 cents for Section E and 43.2 cents for Section F, the classified prices being the equivalent of the average price fixed by the Engineering Commission for the material still remaining.

A large measure of uncertainty has attached to this quicksand in the mind of every engineer and contractor with whom the Committee has come in contact. After mature consideration, the Committee concluded to class this quicksand with the tractable material at the price of the contract, the intractable material (the indurated boulder clay requiring blasting, and the mixture of boulders and gravel) to be given a special classification at a price to be agreed upon with the contractors.

The contractor for Section F submitted a proposition of 50 cents per yard for the special class, and for Section E of 53 cents, both agreeing to take their chances on the quicksand.

These prices are equivalent to an average of 39.2 cents for the material remaining on Section F, or 1.8 less than determined by the Engineering Commission, and the equivalent of and average of 39 cents for Section E, or 2 cents less than that determined by the Engineering Commission.

The minority contended from all the information that 50 cents per yard was a proper price for the intractable material, the same being equivalent to an average price 39.2 cents on the remaining material on Section F and 37.6 cents on Section E. The majority of the committee concluded to offer 35 cents for the intractable material with a possible raise to 37½ cents, the same being equivalent to average prices of 30.3 cents and 30.1 cents on material remaining on Sections F and E respectively.

The contractors refused to entertain this proposition.

#### *Discussion of Cost.*

On what data the price determined by the majority of the committee is based is not apparent from any evidence brought to the attention of the committee or any arguments advanced. The offer is one which could only be accepted by plunging contractors with results alike disastrous to the plungers and to the District and has certainly brought about a disagreement.

The Board has prices on Sections 1, 2, 3 and 4, G and H which have been determined in competition with a proper knowledge of the material to be encountered, and also on Section D, and all these may be compared with Sections F and E.

If 35 cents had been the original price on Section E it would be equivalent to present price with 50 cents for the in-

tractable material. If 33.5 cents had been the original price on Section F it would be equivalent to the present price and 50 cents for the intractable material. It may be recalled that the next lowest bid on Section F was 33 cents at the time of the letting. It may be fairly said that these average prices for Sections E and F are very low when compared to the sections cited; in fact as low as a prudent board would have been justified in entertaining had it been in possession of competent data at the original letting.

#### *The Majority Proposition.*

The extra price on special material would amount to \$107,625 on Section F and \$131,625 on Section E, a total of \$239,350 on an aggregate of one million yards of hard material. I believe that this may be reduced to \$200,000, if it be desirable to extract the last limit from contractors under duress. Whether the contractor will come out whole under these conditions is problematical and in any event the District will have succeeded in getting these two sections done on time and practically at cost.

On the other hand forfeiture is contemplated and readvertisement for new bids. Actual forfeiture on Section F cannot be accomplished in less than six months, and may consume additional time in legal proceedings, so that the most favorable issue will postpone the new contract until next spring with only one year intervening before the channel is to be opened in 1896.

The issue on Section E may, perhaps, be more quickly determined, but not so as to utilize any of the extraordinary weather conditions which may continue through the late autumn. Under these circumstances this District will indeed be fortunate if it receives bids from contractors of standing at \$200,000 in excess of what these contracts may be adjusted for. And after all this trouble and delay and cost, what profit? Men who in no way deserve it are to be put to unnecessary hardship and loss, and a record that may shield from present criticism will be swallowed up in the disastrous demonstration of the ultimate result.

The calamity cry is raised that all the contractors will be making claims on this Board, and that this will be a precedent. As though the precedent had not already been made on several sections. What are the facts in this regard?

It cannot be contended that the rock sections from 7 to 14 in-



clusive, or the earth sections from A to O inclusive, have any basis for a claim. The knowledge of the conditions to be met was amply sufficient and safe contracts have been made, so far as the material to be encountered is concerned. The confessedly difficult and uncertain sections are those from 1 to 6 inclusive, and from A to F inclusive, some twelve miles. Of these Sections 1 to 4 inclusive have been finally adjusted with full knowledge of the conditions. It is conceded that Section 5 will probably require readvertisement. Sections A and B have had the contracts amended to meet the conditions of the large volume of muck encountered, and so far as can now be seen this will fairly off-set any difficult and unanticipated material that may be found.

Sections C, D, E and F are discussed in this report. There is, therefore, nothing in sight to justify this calamity racket except 150,000 yards of hard material on Section 6, which it is admitted the contractor will remove, whether he receives extra compensation or not, and no claim has been filed therefor.

Already members are predicting that the work will not be completed until 1897, and they can as well extend the time to 1898. Members who in the original organization of this Board, early in 1892, thought the work could be done by the fall of 1895 and fixed the date in the spring of 1896, contrary to all engineering advice in favor of the fall of 1896.

The Main Channel of this District can be opened in 1896 as well as any other year—it is physically possible and within the range of executive ability and a wise discretion on the part of the Board. It cannot be done through a halting and aimless policy. Every year's delay on account of derelict work is a postponement of benefits vital to the city and adds to the cost on account of interest charge, pumping, management and maintenance of completed work, by far the largest proportion of the tax levy, a loss that will not be recompensed by the plugging of every spigot and a resort to channel excavation by legal process.

I find no words in which to deplore the fiddling away of the unprecedented weather and labor conditions now prevailing so opportunely, for progress on all main and collateral work.

#### *Conclusion.*

It is unnecessary to multiply words. I recommend that the intractable mater-

ial on Sections E and F be given a special<sup>1</sup> classification and that the price of 50 cents per cubic yard be fixed therefor.

Very respectfully submitted,

(Signed) L. E. COOLEY,

*Of Special Committee on Settlement of  
Difficult Material Controversy."*

#### DESTRUCTION OF 4 PER CENT BONDS— ORDINANCE OF JUNE 6, 1894.

Mr. Eckhart, Chairman, presented an order from the Committee on Finance, directing that Committee, together with the President, Clerk and Treasurer, to cancel and destroy all the unissued 4 per cent bonds, printed under ordinance adopted at the meeting held June 6, 1894, (page 1981 of the Proceedings) and this day repealed, and directing them to report their action under the order; and the order was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Committee on Finance, together with the President, Clerk and Treasurer, authorized and directed to destroy the 4% bonds in accordance with the order.

The following is

#### THE ORDER:

*"Ordered,* That the Committee on Finance, together with the President, Clerk and Treasurer, be and they are hereby authorized and directed to cancel and destroy by burning the entire number of four per cent (4 per cent) bonds which were printed under an ordinance adopted by this Board June 6th, 1894, and this day repealed, but which were never executed or issued, and which said unexecuted bonds are now in possession of the Clerk, and that they report in detail in writing to this Board their action under this order, with a specific description of the bonds so canceled and destroyed."

#### ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Russell, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES,  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

AUGUST 8, 1894.

OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and thirty-third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, August 8, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Prendergast, Russell and Wenter—eight (8), and subsequently Mr. Kelly, making a total of nine (9) members, were present.

MINUTES.

The minutes of the regular meeting

held August 1, 1894, were approved as printed, on motion of Mr. Gilmore, seconded by Mr. Boldenweck.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

<i>Construction Account—</i>	
Griffiths & McDermott, (Sec. 1, Aug. 1, 1894)	\$ 1,283 78
McArthur Bros. (Sec. 2, Aug. 1, 1894).....	19,001 50
Gilman & Co. (Sec. 3, Aug. 1, 1894).....	8,821 29
McArthur Bros. (Sec. 4, Aug. 1, 1894).....	10,358 60
The Qualey Construc- tion Co. (Sec. 5, Aug. 1, 1894).....	7,605 50
Mason, Hoge & Co. (Sec. 6, Aug. 1, 1894)	4,347 00
Mason, Hoge & Co. (Sec. 7, Aug. 1, 1894)	15,296 31

Mason, Hoge, King & Co. (Sec. 8, Aug. 1, 1894).....	\$30,152 28
Halvorson, Richards & Co. (Sec. 9, Aug. 1, 1894).....	19,647 95
E. D. Smith & Co. (Sec. 10, Aug. 1, 1894).....	26,530 00
Mason, Hoge & Co. (Sec. 11, Aug. 1, 1894).....	13,175 32
Mason, Hoge & Co. (Sec. 12, Aug. 1, 1894).....	9,361 40
Mason, Hoge & Co., (Sec. 13, Aug. 1, 1894).....	18 248 34
Smith & Eastman (Sec. 14, Aug. 1, 1894).....	10,496 50
Heldmaier & Neu (Sec. A, Aug. 1, 1894).....	7,449 27
Heldmaier & Neu (Sec. B, Aug. 1, 1894).....	10,755 51
Western Dredging & Improvement Co. (Sec. C, Aug. 1, 1894).....	7,194 20
E. D. Smith & Co. (Sec. D, Aug. 1, 1894).....	10,801 40
Ricker, Lee & Co. (Sec. F, Aug. 1, 1894).....	2 311 29
Gahan & Byrne (Sec. G, Aug. 1, 1894).....	15 744 68
Gahan & Byrne, (Sec. H, Aug. 1, 1894).....	6,745 19
Christie & Lowe (Sec. K, Aug. 1, 1894).....	9,607 50
The Heidenreich Co. (Sec. L, Aug. 1, 1894).....	7 107 03
The Heidenreich Co. (Sec. M, Aug. 1, 1894).....	3,953 20
McMahon & Montgomery Co. (Sec. O, Aug. 1, 1894).....	6,034 35
Heldmaier & Neu (Sec. A, extra work, completing levee, 692 to 710, Aug. 1, 1894).....	5,119 20
	<u>\$287,148 59</u>

## ENGINEERING DEPARTMENT.

Cameron, Amberg & Co. (stationery).....	\$ 39 18
Jacobs, Coles & Co. (stationery).....	8 25
A. C. McClurg & Co. (stationery).....	32 37
P. F. Pettibone & Co. (stationery).....	5 50
Stromberg, Allen & Co. (stationery).....	36 22
Bradner Smith & Co. (stationery).....	27 50
J. F. Tenney, (numbering machine).....	14 40
A. H. Abbott & Co. (drafting material).....	65 06
Keuffel & Esser Co. (drafting material).....	62 07
F. Mayer & Co. (blue prints).....	145 30
W. A. Olmsted, (mounting maps).....	2 00
Morrisson, Plummer & Co. (oils, etc.).....	5 00
Soper Lumber Co. (stakes).....	131 30

L. Manasse, (tally pins)	2 25
Seelig & Kandler, (re-pairing tapes).....	\$ 3 95
F. P. Smith, (copying census).....	50 00
Isham Randolph, (post-age stamps).....	50 00
John McCaffery, (rent, Brighton Park, July, 1894).....	25 00
John T. Allison, (rent, Summit, July, 1894).....	20 00
J. M. Abbitt (rent, Willow Springs, July, 1894).....	20 00
H. S. Norton, (rent, Lemont, July, 1894).....	18 00
O. W. Moon (rent, Lockport, July, 1894).....	20 00
Waukesha Hygeia Mineral Springs Co. (water).....	7 50
Chicago Towel Supply Co. (towelings).....	5 40
John A. Roeblings Sons Co. (wire cord).....	8 00
Orne Electric Construction Co. (electric repairs).....	1 05
Geneva Optical Co. (photograph outfit).....	197 75
Geneva Optical Co. (dry plates).....	22 50
Geneva Optical Co. (solio paper).....	2 75
E. R. Shnable, (traveling).....	4 90
Hiram A. Miller, (traveling).....	10 08
Chas. L. Harrison, (traveling).....	13 80
W. T. Keating, (traveling).....	32 06
F. G. Ewald, (traveling).....	18 19
F. G. Ewald, (emergency).....	22 50
	<u>\$ 1,129 83</u>

## CLERICAL DEPARTMENT.

A. P. Little, (type-writer ribbons).....	\$ 8 25
Warner's Towel Supply, (towelings).....	1 50
C. S. Austin, (ice).....	3 00
	<u>\$ 12 75</u>

## LAW DEPARTMENT.

Warner's Towel Supply (towelings).....	\$ 1 50
C. S. Austin, (ice).....	3 00
S. A. Moffett Co. (liv-ery).....	7 00
	<u>\$ 11 50</u>

## GENERAL ACCOUNT.

Thos. F. Judge, (pay-roll and sundry expense).....	\$ 35 50
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## POLICE DEPARTMENT.

Standard Oil Co. (oil) \$	24 55	
Edward Williams, (expense).....	182 39	
		\$ 206 94
Grand total.....		\$288,545 11

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions;

No. 509, Engineering Department. (sundry supplies).....	\$ 22 60
No. 928, Police Department, (supplies).....	4 50
No. 929, Police Department, (hay, etc).....	72 00
Total.....	\$ 99 10

Mr. Kelly, seconded by Mr. Boldenweck, moved that Requisitions No. 509, Engineering Department, and Nos. 928 and 929 for Police Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 509 for Engineering Department, and Nos. 928 and 929 for Police Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending August 4, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, August 8, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending August 4, 1894, as the same have been reported to me:

Engineering Department.....	129
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	47

Total employes..... 189

Respectfully submitted,

(Signed)

THOS. F. JUDGE,

*Clerk.”*

DECISION OF CHIEF ENGINEER ON HARD MATERIAL CONTROVERSY ON SECTIONS C, D, E AND F, AND ORDER FOR RESUMPTION OF WORK ON SECTION E.

The Clerk presented a report from the Chief Engineer giving his decision on the questions raised in the controversy with the contractors with reference to a classification of difficult material on Sections C, D, E and F, presented in response to an order passed at the meeting held August 1, 1894 (page 2076 of the Proceedings), referring said claims to the Chief Engineer for his decision; and the report was read.

Mr. Boldenweck, seconded by Mr. Altpeter, moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance.

Mr. Eckhart, seconded by Mr. Kelly, moved as a substitute, that the report be ordered printed and placed on file.

On roll-call, on the substitute, the vote stood: Yeas—Messrs. Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—six (6). Nays—Messrs. Altpeter, Boldenweck and Cooley—three (3).

Upon which result the President declared the motion carried, the substitute adopted, and the report ordered printed and placed on file.

In connection with the report Mr. Eckhart presented an order directing the Clerk to notify Streeter & Kenefick to resume work on Section E within ten



days under conditions as provided in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Kelly, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—Mr. Cooley—one (1).

Upon which result the President declared the motion carried, the order adopted, and the Clerk directed to notify Streeter & Kenefick in accordance with the same.

The following is

#### THE REPORT:

“CHICAGO, August 8th, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Under your order of the 1st inst., “That the question raised by communications to the Board of Trustees of this District from the Western Dredging and Improvement Company, dated April 3, 1894; E. D. Smith & Co., dated April 3, 1894; Streeter & Kenefick, dated March 26, 1894, and Ricker, Lee & Co., dated April 3, 1894, with reference to the work of said contractors on the respective Sections C, D, E and F, be and the same is hereby referred to the Chief Engineer for his decision under the provisions of the contracts between the Sanitary District and said Western Dredging and Improvement Company, E. D. Smith & Co., Streeter & Kenefick and Ricker, Lee & Co., respectively.” I have to report as follows:

Inasmuch as work is now and has been for some months past, actually suspended on Section E, Streeter & Kenefick, contractors, it seemed most proper to take action upon that section first. I have carefully considered the claims made by these contractors as set forth in their communications to your Honorable Board under date of March 26, 1894, (pages 1842-3 of Proceedings), and have further, this day listened to a presentation of their case made to me verbally by themselves and their attorney. Familiar as I am with the facts as they developed while the work was in progress upon this section, and with the results of our own careful and costly investigations made after the work was suspended by the contractors, I am fully satisfied that the execution of their contract under all of its terms and at the prices therein stipulated may involve

serious hardship to them. In their arguments to me this morning they urged on their own behalf, that in forming an opinion of the prices for which this work could be done before making their bid, they were misled by the notes of borings made for this District to which they had access. These borings indicated Glacial Drift. The pits which we have lately sunk upon this section also disclose *Glacial Drift*, the difference being that the more elaborate and reliable investigations recently made, disclose the fact that the material to be excavated is of a more difficult character than was indicated by the simple borings. Both sets of investigations point to the same classification, but the latest only shows the real difficulties to be encountered. The questions at issue, as I understand them, are these: Are these contractors under their contract of January 31, 1893, entitled to a classification other than that set forth in the said contract, or to an advance in price per cubic yard over what is stipulated in that contract for glacial drift? In the contract, but two classifications are provided for, which is designed as earth, muck, sand, gravel, clay, hard-pan, boulders, fragmentary rock displaced from its original bed, and any other material that overlies the bed-rock, and *Solid Rock*, which is defined thus: “*Solid rock* shall comprise all rock found in its original bed, even though it may be so loosened from the adjacent underlying rock that it can be removed without blasting.” Our investigations disclose upon this section about 75,000 cubic yards of material coming under the solid rock classification, and hence, the remainder of the material to be removed must come under the only other classification provided, namely, “*Glacial Drift*.”

While the Chief Engineer recognizes the fact that very difficult material has been encountered on this section, yet he sees no provision in any clause of the contract which would warrant him in changing the classification or advancing the price.

Respectfully submitted,  
(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*”

This following is

#### THE ORDER:

“*Ordered*, that the Board of Trustees accept as final the decision of Isham Randolph, Chief Engineer of the District, upon the claim of Streeter & Kenefick for a reclassification of certain material

found by them upon said contract section or for extra compensation therefor, and

*Ordered*, further, that the Clerk of the District be and he is hereby directed to serve a notice upon said Streeter & Kenefick, that unless they resume work under their contract within ten days, they will be considered as having abandoned the work thereunder; and that the District will proceed to have said work completed as provided in said contract and charge the cost thereof to said Streeter & Kenefick in accordance with the provisions of said contract."

#### MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of July, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT :

"Balance on hand at date of last report.....	\$1,464,135.84
Received from County Treasurer, tax account (1893).....	100,000.00
Received from County Treasurer, tax account (1893).....	25,000.00
Received from County Treasurer, tax account (1893).....	25,000.00
Received from National Bank of Illinois, interest for July.....	533.86
Received from Ft. Dearborn National Bank, interest for July.....	592.74
Received from Metropolitan National Bank, interest for July. ....	526.18
Received from American Trust and Savings Bank, interest for July.....	35 66
Received from Chicago National Bank, interest for July.....	512.80
Received from Globe National Bank, interest for July.....	147.58
	<hr/> \$152,348 82
Total cash received for month.....	\$1,616,484.66
Total cash disbursed during month as per annexed schedules, viz:	
Clerical Department....	\$902.91

Treasury Department..\$	166.67
Engineering Departm't.	15,766.15
Engineering—Construction—Department.....	522,128.83
Law Department.....	4,318.30
Law Department—Land Account.....	40,246.03
General Account.....	3,549.47
Police Department.....	3,721.65
	<hr/> \$590,800.01

Balance this date, in banks as per schedule endorsed hereon .....	<hr/> \$1,025,684.65
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(Signed) **MELVILLE E. STONE,**  
*Treasurer.*

CHICAGO, Aug. 3, 1894."

#### SCHEDULE :

Fort Dearborn National Bank.....	\$201,122.08
National Bank of Illinois.....	206,962.61
Chicago National Bank.....	200,638.08
Metropolitan National Bank.....	208,859.95
American Trust and Savings Bank.	21,003.79
Globe National Bank.....	187,098.14
Total.. .....	<hr/> \$1,025,684.65

#### REPORT OF DESTRUCTION OF UNISSUED 4% BONDS.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, together with the President, Clerk and Treasurer, setting forth the cancellation and destruction of all the four per cent. bonds printed under ordinance adopted June 6, 1894, and repealed August 1, 1894, said bonds being destroyed under order of the Board at the meeting held August 1, 1894 (page 2081 of the Proceedings); and the report was read.

Mr. Eckhart, seconded by Mr. Gilmore, moved that the report be adopted, ordered printed, and placed on file.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, August 8, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago :*

GENTLEMEN—Pursuant to the order of



your Honorable Body, passed August 1, 1894, (page 2081 of the Proceedings) this Committee, together with the President, Clerk and Treasurer of the District, did, on August 7, 1894, destroy, by burning, the three thousand (3,000) four per cent bonds of the Sanitary District of Chicago, each for one thousand (\$1,000) dollars and numbered 5001 to 8000, both inclusive, the same being the bonds in the hands of the Clerk, printed under an ordinance adopted by the Board June 6th, 1894, and repealed August 1st, 1894.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*  
W. H. RUSSELL,  
THOMAS KELLY,  
*Committee on Finance.*

Attest:

(Signed) FRANK WENTER,  
*President.*  
THOS. F. JUDGE,  
*Clerk.*  
MELVILLE E. STONE,  
*Treasurer."*

#### REDEPOSIT OF WARRANT FOR "WILSON" LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, directing the Clerk to redeposit with the Treasurer to the credit of the District and the Law Department Land Account thereof, Warrant No. 5877 (\$6,787.50), heretofore drawn in favor of Miriam Wilson (but not accepted) in payment for certain right of way lands in Will County, as authorized at the meeting held June 20, 1894 (page 2017 of the Proceedings); and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk directed to redeposit Warrant No. 5877, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk directed to

redeposit Warrant No. 5877 as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, August 8, 1894.

*To the Honorable Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN:—On June 20, 1894, your Committee reported that it had reached an agreement with Miriam Wilson for the purchase from her of land in Section twenty-two (22), Township thirty-six (36) North, Range ten (10), for the sum of six thousand seven hundred eighty-seven and fifty one hundredths (\$6,787.50) dollars, and recommending that the Clerk be authorized to pay said amount for said land on the voucher of the Attorney.

The recommendation of the Committee was concurred in by your Honorable Body and a warrant issued upon the voucher of the Attorney, as directed, but on tender of the warrant and the presentation of a deed for execution, Mrs. Wilson refused to execute same and declined to carry out her agreement.

Your Committee recommends that Warrant No. 5877, dated June 20, 1894, drawn upon the Treasurer of the Sanitary District of Chicago for the payment to the order of Miriam Wilson of six thousand seven hundred eighty-seven and fifty one hundredths (\$6,787.50), dollars be deposited by the Clerk with the Treasurer to the credit of the District and the Law Department Land Account thereof.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*  
W. H. RUSSELL,  
THOMAS KELLY,  
WM. BOLDENWECK,  
L. E. COOLEY,  
JOHN J. ALTPETER,

*Joint Committee on Finance and Engineering."*

PROPOSITION FROM STREETER & KENEFICK FOR ADDITIONAL PRICE ON HARD MATERIAL ON SECTION E.

The Clerk presented a communication from Streeter & Kenefick, contractors on Section E, making a proposition for continuation of work of excavation on Section E at increased prices for certain



material and under certain other conditions as set forth in the communication; and the communication was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the communication be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

"CHICAGO, August 8, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—When we bid on Section E, it was an ice pond and had been submerged several months, consequently we had no opportunity of verifying the borings which you exhibited at that time and upon which we relied for our information as to the character of the material. The test pits recently made reveal the actual material and how entirely different the original borings were on which we relied. For instance, the first test gave black soil, clay, gravel and some boulders and some quick sand in one hole and nothing to indicate the change in density. The test pits which have been made in the last few weeks, which are absolutely correct, owing to the manner in which they were made and the care taken to note the material taken out, show approximately four hundred thousand cubic yards of quick material called bull-liver, six hundred thousand yards of hard material which requires powder to excavate it, and three hundred thousand yards of other material. These quantities are those unexcavated. Those last test pits were made under the direction of the Engineering Committee to whom you referred the question, with instructions to recommend a price adequate for the hard material and bull-liver. Their recommendation to pay 50 cents a yard instead of the contract price of 27½ cents per yard, seems not to have been acted upon.

Before you finally decide the question of Section E, we respectfully ask you to consider the proposition we now make to you and the position we occupy on this section.

About the first of January we applied for a reclassification for the hard material that cannot clearly be considered steam shovel work, as it requires blasting in its excavation. Our contract was predicated and the price fixed on free or loose material, as an examination of the first borings exhibited by you—previous to letting section E—will convince any-

body, while the test pits recently made show an entirely different condition. We reluctantly accepted the situation as to the bull-liver, and are willing to do it and all free shovelling work at contract price, but the hard material we are not mistaken about, having worked out nearly fifty thousand yards before we stopped our machinery last January, and we beg to submit that we are reputable, responsible contractors, having done work under Robert McClure, consulting engineer with the Chicago, Burlington & Quincy railroad; Mr. Blunt, Chief Engineer Chicago & Northwestern railroad; A. A. Parker, Vice-president Chicago & Rock Island road, to whom we respectfully refer you as to our ability. The hard material overlies all other material in such a way that it is impossible to do the work outside of that in controversy without first taking it off, or a large portion of it. As an evidence of our good faith in the matter which we have taken with reference to this hard material we are willing to arbitrate by leaving it to eminent engineers, such as can be easily selected, or we will submit the following proposition:

You to put a man on our work and keep the cost of drilling, the cost of powder used on this material, and allow us whatever this may be and seven cents per cubic yard extra on all material so handled to assist in making up for the shortage in the output of such material, as it is not likely that it will be more than one-half of what free shovelling would be owing to the rough, coarse manner in which it will come out. This price also to apply to boulders and gravel which are under so much water that we will not be able to use powder, consequently will have to be handled in a more costly manner. We desire to call your attention to the fact that during the time we were working on our contract and until we discovered this hard material, we had performed a year's work in six months, and were consequently six months ahead on the work of our contract, a record which has not been made by any other contractor on the canal. Trusting that you will receive the above in the spirit in which it is written, we are,

Very truly yours,

STREETER & KENEFICK."

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Kelly, the Board then adjourned.

THOS. F. JUDGE,

Clerk.

August 8 :

—2089—

[1894.

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES,

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

AUGUST 15 AND 17, 1894.

#### OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and thirty-fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, August 15, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter — eight (8) members, were present.

#### MINUTES.

The minutes of the regular meeting held August 8, 1894, were approved as

printed, on motion of Mr. Boldenweck, seconded by Mr. Kelly.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

M. G. Paterson, (type-writing) .....	\$9 90
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#### CLERICAL DEPARTMENT.

Waukesha Hygeia Mineral Springs Co. (water) .....	\$3 75
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#### GENERAL ACCOUNT.

Chicago Telephone Co. (service to July 1, '94)	\$ 4 70
The Chicago Herald Co. (advertising Sec. 15) .....	22 20
The Chicago Record (advertising Sec. 15) .....	15 00



<i>The Tribune Co.</i> (advertising Sec. 15)....\$	22 50	
<i>The Inter-Ocean</i> (advertising Sec. 15)....	11 25	
<i>The Chicago Daily News Co.</i> (advertising Sec. 15).....	22 50	
<i>The Chicago Evening Post Co.</i> (advertising Sec. 15).....	15 00	
<i>The Mail</i> (advertising Sec. 15).....	15 00	
John R. Wilson, Publisher, <i>Chicago Evening Journal</i> . (advertising Sec. 15).....	11 25	
<i>The Chicago Dispatch</i> (advertising Sec. 15).....	15 00	
<i>Illinois Staats-Zeitung Co.</i> (advertising Sec. 15).....	10 63	
German - American Publishing Co. (advertising Sec. 15)....	12 50	
<i>The Abendpost Co.</i> (advertising Sec. 15).....	9 00	
<i>Chicago Arbeiter Zeitung Publishing Co.</i> (advertising Sec. 15).....	8 50	
		\$195 03

## POLICE DEPARTMENT.

John Kelley, (hay)....	\$ 54 00	
B. F. West & Co. (roofing barn).....	20 62	
Marshall Field & Co. (toweling, etc).....	11 29	
Hibbard, Spencer, Bartlett & Co. (equipment of department).....	443 24	
Hibbard, Spencer, Bartlett & Co. (equipment of department).....	411 31	
Hibbard, Spencer, Bartlett & Co. (equipment of department).....	347 60	
		\$1,288 06
Grand total.....		\$1,496 74

Mr. Eckhart, seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the

number of persons in the employ of the District for the week ending August 11, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, August 15, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending August 11, 1894, as the same have been reported to me:

Engineering Department.....	129
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	42

Total employes..... 184

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

## MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of July, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, August 15, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to herewith report that the total amount expended on account of and charged to the Clerical Department during the month of July, 1894, was \$7.50, as follows:

General expenses.....	\$7 50
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There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$950.

The total amount expended and charged to the General Account during

the month of July, 1894, was \$316.64, divided as follows:

Printing and Stationery.....	\$ 153 64
Advertising.....	36 00
General expenses.....	127 00
Total.....	\$ 316 64

There are no outstanding liabilities against the General Account, and the expenses for the present month will be about \$6,500.

During the month of July, 1894, there were warrants authorized and drawn for \$553,692.94 against the various accounts as follows:

Engineering Department.....	\$ 726 71
Clerical Department.....	7 50
Law Department.....	1,002 51
General Account.....	316 64
Engineering Department (Construction Account).....	531,074 73
Law Department (Land Account).....	20,320 86
Police Department.....	243 99
Total.....	\$553,692 94

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

#### MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of July, 1894.

The report was read, and, by unanimous consent, was ordered printed, and, with accompanying classified statement, placed on file.

The following is

#### THE REPORT:

"CHICAGO, Aug 7, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I herewith transmit the reports of Divisions 1, 2 and 3, showing the detailed operations of the Engineering Department for the month of July.

The expenses for the month of July were as follows:

Pay rolls.....	\$ 13,799.17
Material.....	2,810.87
Contractor's estimates.....	531,739.73

Total for July.....\$548,349.77

I estimate the expenses for August will be \$575,000.00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

(Accompanied by classified statement.)

"CHICAGO, Aug. 15, 1894.

Isham Randolph Esq., Chief Engineer:

DEAR SIR—I herewith beg to submit my report of the work of construction for the month of July, together with the usual tables showing the condition of the work up to the 1st inst., the amount done during the month, the average daily force employed, etc. Although the weather has continued most favorable, considerable delay was experienced from the difficulty in obtaining supplies, machinery and coal during the strike in the early part of the month, which caused temporary suspension of work in many instances, yet on the whole the rate of progress has averaged over 117 per cent, which is nearly \$100,000.00 in excess of the contract requirements, notwithstanding the fact that nothing was done on Sections "N" and "E" and scarcely a beginning made on Section 1.

Section O. Work was continued on this section with wheel scrapers and dump cars removing sufficient of the top material to level off the irregular surface of the right of way to a uniform grade, which is now completed on the south side of the Main Channel from Robey street to Western avenue boulevard. This force excavated 27,600 cubic yards during the month. There were also 4 steam dipper dredges in operation, attended by dump scows and tugs, that excavated and hauled away 64,600 cubic yards. The average output for each dredge was about 860 cubic yards per day of 10 hours each. The plant employed on the section is:

Steam dipper dredges.....	4
Tug boats.....	4
Dump scows.....	19
Small dump cars.....	40
Wheel scrapers.....	30
Plows.....	4

Section N. Is a dredge section which is and will be inaccessible for such desirable method of excavation until arrangements shall have been effected for passing under certain railroads. It is perhaps unnecessary for me to suggest the importance of the early acquirement of such rights.

The only work done on the section has been with teams and wagons, with which the material excavated has been hauled away for filling in streets.

*Section M.* One steam shovel in connection with an incline conveyor has been in operation all the month working 12 hours per day. Its output was 26,700 cubic yards, or an average of 890 cubic yards per day of 10 hours each. A New Era grader and wheel scrapers were also employed and removed 16,300 cubic yards, making the total 43,000 cubic yards, or 149 per cent of the contract rating, and \$3,075.98 ahead of time on the 1st inst. Another steam shovel and incline conveyor (the latter of steel construction) have been ordered and would doubtless have been in operation by this time but for the delay heretofore mentioned. The present plant consists of:

Steam shovel.....	1
Incline conveyor.....	1
Large dump cars.....	4
New Era grader.....	1
Dump wagons.....	8
Wheel scrapers.....	20
Steam pumps.....	2

*Section L.* Two steam shovels in connection with incline conveyors have been in operation all the month. Since the 11th of July one steam shovel has been working day and night in two shifts of 10 hours each, their total output being 61,200 cubic yards—an average of about 900 cubic yards per day of ten hours for each steam shovel and incline. 16,200 cubic yards were also moved with dump cars, teams and scrapers, giving a total of 77,400 cubic yards, equal to 176 per cent of the rated requirement, and placing the section \$6,599.44 in advance on the 1st inst.

The plant comprises:

Steam shovels.....	2
Incline conveyors.....	2
Large dump cars.....	3
Steam hoist.....	1
Dump cars.....	30
Dump wagons.....	15
Wheel scrapers.....	19
Drag scrapers.....	4

*Section K.* On this section all the material removed was with "New Era" graders and wheel scrapers. The average output for working day was 3,650 cubic yards, amounting to a total of 91,300 cubic yards. This is 199 per cent of the monthly requirement and credits the section with \$11,334.45 ahead of time on the 1st inst.

The plant embraces:

New Era graders.....	4
Dump wagons.....	33
Plows.....	6
Wheel scrapers.....	18
Drag scrapers.....	2

*Section I.* On this section one steam shovel, in connection with the truss conveyor, has been in operation all the month. Since July 13th another similar plant has been in operation, working double shifts of 10 hours each per day, their total output being 45,000 cubic yards, or an average of 640 cubic yards per day (10 hours).

About 28,000 cubic yards were also excavated with "New Era" graders and wheel scrapers which gives a monthly percentage of 112 per cent, and credits the section with \$1,338.06 ahead of contract time on the 1st inst. Two extra steam shovels are on the ground awaiting the erection of truss conveyors which are now being built.

The present plant includes:

Steam shovels.....	4
Truss bridge conveyors with steam hoists.....	2
Large dump cars.....	9
Small dump cars.....	2
Steam hoists.....	2
Steam pumps.....	2
Dynamos and engines.....	2
Iron dump wagons.....	10
Wagons.....	20
Wheel scrapers.....	74
New Era graders.....	2
Plows.....	7

*Section H.* The contractors on this section (and Sec. G) have arranged for the construction of a very elaborate and expensive self-loading conveyor, on which they have been greatly delayed in getting material. They now hope to have the appliance finished and in operation within three or four weeks; but, inasmuch as it is the first one of its kind, I do not think that it can be completed and thoroughly tested before October 15th to November 1st. Its designers and builders claim that its capacity will more than suffice to complete the section on time without other assistance. Relying upon this, and their excess on Section G, the contractors are doing but little on this section further than to make sufficient excavation to build the levee along the northerly boundary, which they have about completed. There would probably be no serious objection to this plan, provided one had any reasonable assurance that this new appliance will fulfill the expectations of its projectors; and, while I do not wish



to discredit the appliance in the least, our recent observation, under somewhat similar conditions, has taught us that it is best to rely upon well known and safe methods until better ones shall have been demonstrated; hence, inasmuch as they have been subjected to such unavoidable delay, I have suggested to the contractors the propriety of maintaining a sufficient team force during this exceptionally fine teaming season to keep the section well along pending the completion and testing of their new device.

During the month a water supply pipe was laid throughout the section connecting with the system on Section G, and 37,136 cubic yards of material were excavated from the Main Channel and placed in the levee with teams and wheel scrapers. This is 90 per cent of the monthly rating and leaves the deficiency up to the 1st inst \$37,097.88. If the excess on Section G (\$19,351.04) be deducted, it would reduce the net deficiency to \$17,746.84.

At the end of the month there were employed 145 teams, which force has been considerably reduced at this time. The levee on this section is completed with the exception of about 1000 feet where the question of right of way was in doubt; this, however, was found all right, and the levee will doubtless be finished during the current month which will give a complete continuous levee from the range line at Summit to Corwith Junction.

*Section G.* The work on this section has progressed in a very satisfactory manner, the output for the month being 101,718 cubic yards, or 180 per cent of the monthly rating, and placing the section \$19,351.04 ahead of contract time on the 1st inst.

It has been found necessary to make several changes in the belt conveyor mentioned in my last report, and although it has excavated considerable material the results thus far do not warrant any conclusion as to its utility or capacity. Meanwhile other sufficient means are employed to more than maintain the required rate. There were employed during the month an average of 70 teams, 1 steam shovel and 1 belt conveyor.

*Section F.* Fourteen days were lost on this section for want of coal, reducing the output to 24,915 cubic yards, or 74 per cent of the monthly rating. All excavation was one in soft material overlying the hard

pan. There is not probably any more than another month's work in the free shoveling material on this section. The plant engaged consists of:

Steam shovels.....	3
Locomotives.....	4
Large dump cars.....	30
Steam pumps.....	5

*Section E.* No work was done during the month.

*Section D.* This section is still gaining on its required rating, and is now (1st inst.) \$8,704.89 in advance of its contract obligations. The output for the month was 81,697 cubic yards, equal to 136 per cent of the monthly requirement. The plant employed was:

Teams.....	51
Locomotives.....	4
Cars.....	40
Steam shovels.....	2
New Era graders.....	3

*Section C.* The coal famine materially affected the progress on this section, the output being 60,725 cubic yards, or 105 per cent of the monthly rating, leaving a contract time deficiency of \$51,202.28, or about three months behind on the 1st inst.

The plant comprises:

Steam shovels.....	2
Hydraulic dredge.....	1
Locomotives.....	4
Cars.....	40
Pumps.....	3
Dynamo and electric light apparatus...	1

*Sections A and B.* The two hydraulic dredges completed the dredge work on Section B, 185,831 cubic yards and excavated 30,888 cubic yards, on Section A, which is equal to about 160 per cent of the average monthly rating for both sections, considered together, or 373 per cent for Section B, and 39 per cent for Section A. This leaves a contract time deficiency on Section B. of \$1,345.85 and on Section A, \$167,594.36. Both hydraulic dredges are now engaged on Section A.

A levee is being thrown across Section B for the purpose of unwatering the upper part of it and commencing sub-excavation.

It is expected that the remaining dredge work on Section A will be completed by October 15th, which would bring this section well up in point of time progress. There were about 24,000 cubic yards of material hauled into the trestle for River Diversion levee during the month, in which the same difficulty was experienced as last month

owing to the depth of the muck and the unstable foundation on which the trestle stands. Although this condition retards progress to a great extent, I am satisfied that the levee will be closed up in good season.

The plant on these sections consists of:

Dipper dredge.....	1
Sluicer for dipper dredge.....	1
Hydraulic dredges.....	2
Transport boat.....	1
Barges.....	2
Steam shovel.....	1
Locomotives.....	2
Large dump cars.....	25

*Section 1.* The strike probably interfered more with progress on this section than any other, as it was impossible to get material and machinery on the ground until late in the month, when two steam shovels were started working an aggregate of 19 days and scraper teams 169 days, the output being 5,300 cubic yards, or 4 per cent of the contract rating, leaving a time deficiency of \$105,197.16. The above result, (5,300 cubic yards) for the force employed, is not a fair indication of what may be expected after the work is properly opened up. The present plant consists of:

Steam shovels.....	2
Locomotives.....	4
Large dump cars.....	60
Steam pumps.....	3

*Section 2.* The contract time deficiency on this section up to the 1st inst. was \$153,056.52, based upon the original contract. The output for the month was 43,224 cubic yards, which is equal to 117 per cent of the monthly rating, a gain of 17 per cent during the month. The plant employed is:

Steam shovels.....	2
Steam hoists.....	2
Steam pumps in constant use.....	2
Large dump cars.....	38
Small dump cars.....	52

*Section 3.* The deficiency on this section under the new contract up to the 1st inst. is \$107,190.04. The amount excavated during the month is 16,200 cubic yards of glacial drift, and 12,892 cubic yards of solid rock, amounting to 67 per cent of the monthly rating under the new contract, or about 100 per cent of the original contract requirement. Another cable way has been added to their plant during the month, making four in all. Their new machinery is getting in better working order and substantial improvement is to be expected. The plant consists of:

*In use.*

Air compressor.....	1
Steam shovel.....	1
Cable ways.....	4
Power drills.....	6
Channellers.....	6
Steam hoist and incline.....	1
Steam pumps.....	2
Dump cars.....	30

*Idle.*

Steam pump.....	1
Hoisting engines and boiler.....	2
Horizontal boiler and engine.....	1

*Section 4.* On the 1st inst., under the original contract, the deficiency on this section was \$186,756.76. The amount of excavation during the month was 47,200 cubic yards, or 118 per cent of the monthly rating, showing a gain of 18 per cent during the month. The plant comprises:

*In use.*

Steam shovels.....	3
Large dump cars.....	40
Small dump cars.....	51
Steam hoisting engines and incline.....	2
Steam pumps.....	2

*Idle.*

Steam pumps.....	3
Portable boilers.....	2
Hoisting engines.....	2
Wheel scrapers.....	43
About 200 dump cars.....	

*Section 5.* \$196,529.02 is the deficiency on this section on the 1st inst. The estimate shows the output during the month to have been 43,000 cubic yards of glacial drift and 500 yards of solid rock, which amounts to 84 per cent of the monthly requirement under the original contract rating—a loss of 16 per cent during the month, which is partially accounted for by the scarcity of coal, and delay caused by a small slide. The plant consists of:

*In use.*

Locomotives.....	4
Steam shovels.....	2
Hoists.....	3
Dump cars.....	104
Channeler.....	1
Steam drill.....	1
Large pumps.....	2
Small pumps.....	4

*Idle.*

Steam shovel.....	1
Derricks.....	2
Locomotive.....	1
Cars.....	54
Channeler.....	1
Steam Drills.....	3
Large pump.....	1
Small pumps.....	3



*Section 6.* Under the new contract rating there was a deficiency of \$32,869.53 on this section on the 1st inst. As suggested in my last report, there was a considerable falling off in the output on this section during the past month, which will not probably be recovered during the current month. The estimate returns 35,800 cubic yards of glacial drift, which is but 36 per cent of the new monthly requirement—a loss of 64 per cent. Practically the same conditions exist as stated in my last report. The hydraulic dredge has moved down at work on Section 7, and the west half of this section cannot be unwatered until the dredge shall have finished on Section 7, meantime the plant on the east half of the section is being increased and now consists of:

*In use.*

Steam shovel.....	1
Steam hoists.....	4
Dump cars.....	30
Cable ways.....	2
Large pump.....	1
Medium pumps.....	3

*Idle.*

Steam hoist.....	1
Dump cars.....	13
Steam pumps.....	2

*Section 7.* This section shows a deficiency on the 1st inst., under the new rating, of \$14,789.02. The output during the month was 7,100 cubic yards of glacial drift and 34,300 cubic yards of solid rock, which amounts to 106 per cent of the monthly rating. Their plant has been somewhat strengthened and full progress should be maintained. It now embraces:

*In use.*

Air compressor.....	1
Hulett derricks.....	2
Quarry derricks.....	4
Steam hoists.....	3
Dump cars.....	25
Channellers.....	6
Drills.....	9
Pumps.....	5
Hulett Cantilever (not completed).....	1

*Idle.*

Hulett incline.....	1
Steam hoist.....	1
Dump cars.....	36
Channellers.....	2
Drills.....	4
Pump.....	1

*Sections 8, 9, 10, 11, 12 and 13.* Reference to the "statement showing the amount of work done during the month of July" which is hereto appended, will fully disclose the standing of these sections. The respective monthly percentages are 264 per cent, 169 per cent, 226 per cent, 169 per cent, 124 per cent and 227 per cent, which amounts to \$118,472.23 in excess of, or an average of more than double the monthly contract requirements on these sections.

*Section 14.* This section was \$229,147.60 in arrears on the 1st inst. according to the original contract rating upon which progress is based. The output during the month was 35,000 cubic yards of glacial drift and 13,900 cubic yards of solid rock, which is equal to 109 per cent of the monthly rating—a gain of 9 per cent.

There has not been such improvement in the methods of removing the rock from the pit as was expected. When the relative quantities of glacial drift and solid rock are considered, the great disproportion of the above output is apparent, and it is manifest that some decided improvement in the handling of the rock should be made. The contractors are still hopeful of eventually succeeding with the present style of derrick by making certain alterations therein.

Their plant consists of:

*In use.*

Boiler 50 H. P.....	1
Boiler 35 H. P.....	3
Boiler 20 H. P.....	2
Double derrick.....	1
Steam hoists and inclines.....	2
Channellers.....	4
Steam drills.....	9
Steam pumps.....	4
Small cars.....	32
Steam shovels.....	2
Locomotives.....	3
Large dump cars.....	60

*Idle.*

Air compressor.....	1
---------------------	---

From the results thus far it is apparent that the rock work is practically out of the way, and that every effort should be put forth to insure the expedition of the work on the earth sections that are in arrears.

Respectfully submitted,

(Signed)

U. W. WESTON,

*Supt. of Construction."*



## FORCE REPORT—DAILY AVERAGE, JULY, 1894.

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Chan- nelers.	Air Com- pressors.	Conveyors.	Locomo- tives.	Cars.	Dredges.	Graders.	Steam Tow Boats.	Scows.
O.....	79	23	...	...	...	...	...	...	...	...	25	3.4	...	4.1	15.3
N.....	43	27	1.2	1.0	...	...	...	...	1.2	...	2	...	0.9	...	...
M.....	102	13	2.9	...	...	3	...	...	2.8	...	14	...	...	...	...
L.....	57	96	...	...	...	...	...	...	...	...	...	...	3.9	...	...
K.....	141	54	3.2	1.4	...	2	...	...	3.2	...	6	...	1.9	...	...
I.....	35	84	...	...	...	...	...	...	...	...	...	...	...	...	...
H.....	101	80	1.5	2.4	...	...	...	...	1	...	33	...	...	...	...
G.....	64	1	2.0	3.2	...	...	...	...	4	...	19	...	...	...	...
F.....	105	54	2.0	3.0	...	...	...	...	4	...	36	...	2.8	...	...
D.....	146	13	2.0	3.4	...	...	...	...	4	...	27	1	...	1	...
C.....	113	1	...	...	...	...	...	...	...	...	...	2.6	...	...	...
B.....	148	1	9	...	...	...	...	...	2.0	23	7	...	...	...	...
A.....	89	13	8	8	...	...	...	...	1.0	7	...	...	...	...	...
1.....	204	25	1.9	5	...	1.2	...	...	...	...	84	...	...	...	...
2.....	320	9	8	4.3	4.8	8	3.1	9	3.5	...	18	...	...	...	...
3.....	192	22	2.9	5	5	1.6	...	...	...	...	88	...	...	...	...
4.....	197	17	1.7	5.1	3	1.3	7	...	5	100	...	...	...	...	...
5.....	200	10	9	2.6	...	3.7	...	...	...	...	18	6	...	...	...
6.....	409	12	...	6.6	11.6	4.7	6.9	2.0	4.0	...	23	...	...	...	...
7.....	544	20	...	2.8	18.1	2.7	10.9	.9	5.1	...	28	...	...	...	...
8.....	464	13	...	3.9	13	3.1	6.2	...	1.6	...	136	...	...	...	...
9.....	443	6	...	2.0	18.1	3.6	8.8	1	2.9	...	40	...	...	...	...
10.....	214	4	...	5.0	15.2	...	6.2	1.1	3.8	...	...	...	...	...	...
11.....	149	2	...	4.0	8.9	...	2.7	1.1	2.1	...	2	...	...	...	...
12.....	304	4	...	6.0	17.1	...	8.1	1.1	4.4	...	...	...	...	...	...
13.....	287	8	...	5.5	5.8	...	3.8	.8	.8	3.6	81	...	...	...	...
Totals.....	5,100	617	24.7	73.0	113.4	23.2	57.4	8.9	36.4	23.6	810	8.3	9.5	4.1	16.3

STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE  
MONTH OF JULY, 1894 (MAIN CHANNEL).

SECTIONS.	Amount Done During July.	Average Monthly Requirement.	Deficiency for July.	Excess Over Monthly Requirement.	Per Cent. of Monthly Requirement.
O.....	\$19,362 00	\$ 13,373 30	.....	\$ 5,988 70	145
N.....	.....	10,614 81	\$ 10,614 81	.....	00
M.....	9,331 00	6,255 02	.....	3,075 98	149
L.....	15,247 80	8,648 36	.....	6 599 44	176
K.....	22,825 00	11,490 55	.....	11,334 45	199
I.....	12,700 00	11,361 94	.....	1,338 06	112
H.....	10,769 44	11,966 83	1,197 39	.....	90
G.....	28,481 04	15,791 38	.....	12,689 66	180
F.....	5,917 21	7,971 64	2,054 33	.....	74
E.....	.....	16,142 53	16,142 53	.....	00
D.....	21,598 64	15,788 43	.....	5,810 21	136
C.....	14,270 38	13,568 10	.....	702 28	105
B.....	50,174 37	13,443 95	.....	36,730 42	373
A.....	9,459 45	24,224 63	14,765 18	.....	39
1.....	2,273 70	53,735 43	51,461 73	.....	04
2.....	21,612 00	18,541 43	.....	3,070 57	117
3.....	18,988 32	28,121 22	9,182 90	.....	67
4.....	23,128 00	19,623 70	.....	3,504 30	118
5.....	13,697 50	16,317 19	2,619 69	.....	84
6.....	9 666 00	26,619 64	16,953 64	.....	36
7.....	27,056 50	25,462 74	.....	1,593 76	106
8.....	56,277 00	21,295 08	.....	34 981 92	264
9.....	32,536 40	19,232 36	.....	13 304 04	169
10.....	50,960 00	22,472 29	.....	28,487 71	226
11.....	32 968 00	19,493 98	.....	13 474 02	169
12.....	23,854 25	19,200 06	.....	4 654 19	124
13.....	42,159 00	18,588 65	.....	23,570 35	227
14.....	22,491 00	20,653 03	.....	1,837 97	109
Totals.....	\$597,754 10	\$509 998 27	\$124 992 20	\$212 748 03	117 21

TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVER

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION.	
		Glacial Drift	Solid Rock.	Glacial Drift	Solid Rock.
		Cubic Yards.	Cubic Yards.	Cubic Yards.	Cubic Yards.
O	McMahon & Montgomery Co. et al.	223,400			
N	Hayes Bros. et al.				
M	The Heidenreich Co.	111,800			
L	The Heidenreich Co.	224,700			
K	Christie & Lowe	176,800			
I	Christie & Lowe	278,200			
H	Gahan & Byrne	37,136			
G	Gahan & Byrne	294,702			
F	Ricker, Lee & Co.	433,888		158,234	
E	Streeter & Kenefick	469,163		95,718	
D	E. D. Smith & Co.	797,893			
C	Western Dredging & Imp. Co.	439,450		162,537	
B	Heldmaier & Neu.	517,285		208,626	
A	Heldmaier & Neu.	413,442		117,786	
1	Griffiths & McDermott.	124,826		5,876	
2	McArthur Bros.	365,163		29,516	
3	Gilman & Co.	263,210	15,047		
4	McArthur Bros.	401,600			
5	The Qualey Construction Company	369,600	1,000		
6	Mason, Hoge & Co.	375,900		112,700	
7	Mason, Hoge & Co.	116,800	194,800	96,700	41,000
8	Mason, Hoge, King & Co.	35,800	349,900	52,900	96,200
9	Halvorson, Richards & Co.	62,700	276,300	37,700	16,000
10	E. D. Smith & Co.	26,400	584,100	27,400	56,500
11	Mason, Hoge & Co.	43,492	482,200	5,756	11,433
12	Mason, Hoge & Co.	27,400	450,600		
13	Mason, Hoge & Co.	32,822	678,200		
14	Smith & Eastman	171,500	181,300		
Totals		6,835,072	3,213,417	1,111,449	221,183

Main Channel, glacial drift.....	
Main Channel, solid rock.....	
River Diversion, glacial drift.....	
River Diversion, solid rock.....	

Total amount required to be done August 1st, 1894.....  
Total amount done August 1st, 1894.....

Total amount short as per contract.....

Total value of work done August 1st, 1894.....	
Reserved.....	$\left\{ \begin{array}{l} 12\frac{1}{2} \text{ per cent.} \\ 10 \text{ per cent.} \end{array} \right.$

Total value of vouchers paid, including those of August 1st, 1894....



## SION) AND CONDITION OF WORK ON CONTRACTS AUGUST 1ST, 1894.

Total value of work done to Aug. 1st 1894, on each section.	Total value of work required to be done to Aug. 1st, 1894.	Amounts behind as per contracts.	Amounts ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary June 1st, 1894, to time of completion.	Progress made during month of July, 1894.
\$ 46,914 00	\$ 40,119 90	\$ .....	\$ 6,794 10	\$13,373 30	\$13 673 53	\$19,362 00
.....	31,844 43	31,844 43	.....	10,614 81	11,076 32	.....
24,260 60	25,020 08	759 48	.....	6,255 02	6,550 80	9,331 00
44,265 90	34 593 44	.....	9,672 46	8 648 36	8,791 40	15,247 80
44,200 00	45 962 20	1,762 20	.....	11,490 55	12,259 29	22 825 00
69,550 00	45,447 76	.....	24,102 24	11,361 94	11,332 54	12,700 00
10,769 44	47,867 32	37,097 88	.....	11,966 83	13,007 42	10,769 44
82,516 56	63,165 52	.....	19 351 04	15,791 38	16,068 83	28,481 04
140,628 97	123,900 70	.....	16,728 27	9,110 44	8,229 08	5,917 31
155,342 28	212,941 77	57 599 49	.....	16,940 19	18,018 34	.....
210,942 96	202,238 07	.....	8,704 89	15,788 43	16 182 92	21,598 64
141,466 95	192,669 23	51,202 28	.....	14,820 71	17,235 86	14,270 38
195 995 97	197,341 82	1 345 85	.....	15,180 14	17,648 80	51,254 37
162,688 58	330 282 94	167 594 36	.....	25,406 38	31,590 06	9 459 45
36,564 56	141,761 72	105,197 16	.....	53,735 43	53,735 43	2 273 70
184,317 48	337,374 00	153 056 52	.....	18,743 00	24,863 58	21,612 00
137,573 42	244,763 46	107,190 04	.....	28,121 22	33,566 96	18,938 32
186 093 54	372,850 30	186,756 76	.....	19,623 70	27,776 89	23,128 00
105,339 00	301 868 02	196,529 02	.....	16,317 19	24,128 73	13 697 50
130,717 00	163 586 53	32,869 53	.....	26,631 51	26,930 88	9,666 00
228,823 00	243,612 02	14,789 02	.....	25,550 84	26,144 27	27,056 50
356,521 75	469,480 60	112,958 85	.....	23,474 03	31,195 19	56,277 00
250 882 70	396,675 80	145 793 10	.....	19,833 79	27,377 55	32 536 40
525,930 00	474,486 69	.....	51,443 40	23,774 33	23,854 68	50 960 00
406,141 30	395 168 20	.....	10,973 10	19,758 41	20 333 49	32 968 00
365 389 00	384 001 20	18,612 20	.....	19,200 06	20,238 28	23 854 25
515 488 22	371 773 00	.....	143,715 22	18,588 65	14,292 26	42,159 00
183,913 00	413 060 60	229,147 60	.....	20,653 03	30,825 84	22,491 00
\$4,943,236 18	\$6,303 857 23	\$1,652 105 77	\$291,484 72	\$520,783 67	\$586,929 22	\$598 834 10

## Cubic Yards.

.....	6,835,072
.....	3,213,447
.....	1,111,449
.....	221,183
.....	\$6,303,857 23
.....	4 943 236 18
.....	\$1,360,621 05
.....	\$4,943,236 18
.....	\$601,031 47
.....	106,431 32
.....	707,462 79
.....	\$4,235,773 39

"CHICAGO, Aug. 9, 1894.

*Mr. Isham Randolph, Chief Engineer:*

DEAR SIR:—The work of Division 2 for the month of July was as follows:

The land surveys have been continued and carried southward as far as the south line of Section 4, T. 35 N., R. 10 E. (Granite street, Joliet). This furnishes the right of way survey as far as at present ordered. Plats and field books have been turned in.

The stadia survey at Joliet is finished as far as McDonough street, and the lower basins sounded, soundings being taken of both mud and rock surface. The reduction of the stadia notes is in progress.

The work of taking record photographs was continued.

Examinations and surveys with reference to railroad location between Bridgeport and Joliet were undertaken.

The maintenance of record and water gauges was continued.

The expenses for August will approximate to those for July.

Investigations of questions pertaining to Sections E and F were made and reported upon.

Respectfully,

(Signed) THOS. T. JOHNSTON,

*First Assistant Chief Engineer."*

"CHICAGO, August 14, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of July, 1894:

Estimated the acreages of tracts from Summit to Bridgeport, between the Illinois and Michigan Canal and the C., S. F. & C. Ry.; Tracts 44 and 45 in Sections 22 and 23, T. 36 N., R. 10 E., and tracts in Sections 3 and 4, T. 35 N., R. 10 E.

Calculated the quantity of material in a proposed railroad embankment across Main Channel east of Corwith, and estimated the masonry in the piers and abutments of bridge plans for Willow Springs, Lemont and Romeo.

Made two profiles of borings and test pits in contract Sections E and F, and

outlined plans of proposed draw bridges at Willow Springs, Lemont and Romeo.

Platted the Main Channel on contour sheets Nos. 3, 4, 5 and 6.

Finished the cross-sections of various canals, the originals and tracings of the map and profile of the railroad crossing at Western avenue, and the highway crossings at Lemont and Romeo.

Tracings were made of plats of the right of way in Sections 3 and 4, T. 35 N., R. 10 E., and Sections 27 and 28, T. 36 N., R. 10 E., and of the topographical map of the wire mills territory at Lockport.

Commenced a map and profile of Kedzie avenue, between the Illinois and Michigan Canal and the Ogden Ditch, and a map of the Desplaines Valley at Lemont.

Work was continued during the month on the plat books, the district map, progress profiles, the map of the Illinois River, and the plat of the surveys northwest of the Desplaines River, between the Summit road and the south line of Section 15.

The expenses for this month will be the same as for July.

Yours respectfully,

(Signed) EDGAR WILLIAMS,  
*Second Assistant Chief Engineer."*

#### SEMI-ANNUAL PROPERTY RETURN FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Chief Engineer, transmitting the semi-annual property return from the Engineering Department, for the half year ending June 30, 1894.

The report was read, and, by unanimous consent, was ordered printed, and, with accompanying property return, placed on file.

The following is

#### THE REPORT:

"CHICAGO, August 15th, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the half-yearly return of property for the Engineering Department, for the term ending June 30th, 1894.

Very respectfully,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Accompanied by semi annual property return.)

COMPLETION OF TOPOGRAPHICAL MAP  
OF DISTRICT.

The Clerk presented a report from the Chief Engineer, making requisition for authority to expend \$1,000 on survey, for the completion of topographical map, under order of the Board at the meeting held November 16, 1892, (page 884 of the Proceedings); and the report was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the report be ordered printed and placed on file, and the requisition made therein allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—Mr. Eckhart—one (1).

Upon which result the President declared the motion carried, the report ordered printed and placed on file, and the requisition made therein allowed.

The following is

## THE REPORT:

“CHICAGO, August 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On November 16th, 1892, (see page 884 of Proceedings), you passed an order on the Chief Engineer to prepare a topographical map of the Sanitary District, covering the territory within eight miles thereof. This map is now nearing completion, but the information is entirely lacking in the townships of Worth, Lake, Palos and Elk Grove in Cook County, and parts of Addison, York and Downer's Grove in Du Page County.

It will take a leveling party two and one-half to three months to collect this information, and the outlay will be approximately \$1,000. I therefore ask authority to employ such a party and have the work done this season, so that the map may be completed in compliance with your order.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*”

## MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of July, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, August 8, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith the monthly report for July, 1894. The total amount paid out by this Department during the month is as follows:

*General Expenses.*

Court costs.....	\$954 78
Right of way.....	8 85
Expense account.....	30 41
Printing and stationery	5 47
Sundries.....	3 00
	————— \$1,002 51

*Land Account.*

Right of way (for which deeds have passed)...	\$16,870 00
Taxes, Cook County....	399 51
Taxes, Will County....	51 35
	————— \$17,320 86
Total.....	<u>\$18,323 37</u>

The reason there is no salary account in this report is explained in the last monthly report of this Department.

The appeal from the Circuit Court in the case of Harlev vs. the District was heard by the Appellate Court. Preparation for oral argument on the part of the District was made, but the Court, after the argument of appellant, stated that it was not necessary to hear appellee.

The decision of Judge Smith was sustained, but that portion of the order directing the payment of damages on account of the issuance of the injunction was reversed and remanded.

The suit for the condemnation of eighteen lots in Manchester was tried before Judge Burke with a jury, and a verdict reached. The judgment has been paid and the District now has possession of the property.

Much time has been given to the legal questions involved in the consideration of the claims of various contractors for extra compensation for hard material found on their respective sections or for a reclassification of same under their contracts.

The question also as to what obligations, if any, rest upon the District to provide for bridges over its channel, has been examined



into, and the decisions pertaining thereto collected.

Respectfully submitted,

(Signed) ORRIN N. CARTER,  
Attorney."

#### PAYMENT FOR "COOK-KETCHAM" LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, transmitting an order, authorizing and directing the Clerk to pay Stephen W. Rawson, Trustee, and John R. Cook and John R. Cook, Trustee, on the vouchers of the Attorney, certain sums, as provided in the order for certain right of way lands in Cook County, in full of verdict for said lands and damages to adjoining land in the case of the Sanitary District of Chicago vs. Marianna A. Ogden, John R. Cook, et. al.; and the report and order were read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

Mr. Eckhart, seconded by Mr. Kelly, then moved the adoption of the accompanying order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk authorized and directed to pay said Stephen W. Rawson, Trustee, and John R. Cook and John R. Cook, Trustee, on the vouchers of the Attorney, certain sums, as provided in the order, for certain right of way lands in Cook County, in full of verdict for said lands and damages to adjoining land in the case of the Sanitary District of Chicago vs. Marianna A. Ogden, John R. Cook, et al., as provided in the order.

The following is

#### THE REPORT:

"CHICAGO, August 15, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering submit herewith an order for the payment of the amount finally awarded by the court for the tracts of land known as the Cook or Ketcham land.

Various attempts were made by your Committee to reach an agreement with the owners of said land for the purchase of same at what your Committee deemed a reasonable price, corresponding with the settlements which had been reached for adjoining lands, but the demands of the owners for the land to be taken were greatly in excess of what had been paid by the District for land similarly situated, and in addition thereto a large sum was demanded for damages to land not taken. Inasmuch as your Committee believed that no land would be damaged by the improvement proposed to be made by the District, but rather would be benefited thereby, and as it had in no case, in its settlements with any of the owners of lands this side of Summit, Ill., paid damages for land not taken, your Committee were unable to agree with Messrs. Cook and Ketcham upon any price for said land, and a petition for the condemnation of same was filed August 7, 1893.

A trial lasting three weeks ended February 3, 1894, by a disagreement of the jury.

The cause was then submitted to His Honor, Judge Gibbons, without a jury, resulting in a finding by him of twenty-one thousand six hundred sixty-six and 66-100 (\$21,666 66) dollars for the land taken and eight thousand two hundred twenty-nine and 66-100 (\$8,229.66) dollars for damages to remaining land not taken.

This award gives for the land taken about one thousand two hundred and fifty (\$1,250) dollars per acre. The tract adjoining it on the west was purchased by the District for \$800 per acre, and that immediately adjoining it on the east for \$1,000 per acre.

The amount awarded for damages to land not taken was an average of about

\$365 per acre. Fortunately for the District the settlements thus far made for all the land acquired by it this side of Summit, Illinois, have been made without any allowance for damages to land not taken.

Had the District paid for the land acquired by it this side of Summit, proportionately to the amount awarded for the Cook land by Judge Gibbons, it would have necessitated an additional expenditure for land of at least \$800,000.

Since by the terms of the stipulation submitting the cause to the court the decision rendered is final, your Committee has no alternative but to recommend the passage by your Honorable Body of the order submitted herewith.

Respectfully submitted,

(Signed)

B. A. ECKHART,

*Chairman.*

WM. BOLDENWECK,

THOMAS KELLY,

W. H. RUSSELL,

L. E. COOLEY,

JOHN J. ALTPETER,

*Joint Committee on Finance and Engineering."*

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The following is

#### THE ORDER:

"*Ordered*, That the Clerk of this District be and he is hereby authorized and directed to pay, on the vouchers of the Attorney, to Stephen W. Rawson, Trustee, the sum of twenty-five thousand and eighty-eight and eighty-one one hundredths (\$25,088.81) dollars and to John R. Cook and John R. Cook, trustee, the sum of four thousand eight hundred and seven and fifty-one one hundredths (\$4,807.51) dollars, pursuant to the finding of His Honor, Judge Gibbons, and the final order of judgment entered thereon in the Circuit Court of Cook County on the 14th day of August, 1894, in the case of the Sanitary District of Chicago vs. Marianna A. Ogden, John R. Cook, et al.. Gen. No. 118,948, said sums being in full payment of damages for land not taken and in full compensation for land taken by said Sanitary District and described as follows:

That part of the west half (W.  $\frac{1}{2}$ ) of the

west half (W.  $\frac{1}{2}$ ) of the southwest quarter (S. W.  $\frac{1}{4}$ ) of Section four (4), Township thirty-eight (38) North, Range thirteen (13) East of the Third Principal Meridian, lying north (N.) of the northerly boundary line of the right of way of the Chicago, Santa Fe and California Railway Company.

Also, that part of the west half (W.  $\frac{1}{2}$ ) of the west half (W.  $\frac{1}{2}$ ) of the southwest quarter (S. W.  $\frac{1}{4}$ ) of Section four (4), Township thirty-eight (38) North, Range thirteen (13) East of the Third Principal Meridian, lying between the northerly reserve line of the Illinois and Michigan Canal and the southerly boundary line of the right of way of the Chicago, Santa Fe and California Railway Company.

Also, that part of the west half (W.  $\frac{1}{2}$ ) of the west half (W.  $\frac{1}{2}$ ) of the northwest quarter (N. W.  $\frac{1}{4}$ ) of Section four (4), Township thirty-eight (38) North, Range thirteen (13) East of the Third Principal Meridian, lying south (S.) of a line drawn from a point in the west (W.) line of said section, forty-two (42) feet south (S.) of the west (W.) quarter corner of said section to a point in the north (N.) and south (S.) center line of said section one thousand and seventeen (1017) feet north (N.) of the center of said section, all of said premises lying and being situate in the County of Cook and State of Illinois."

#### CONTINUATION OF GRADING ON SECTIONS O AND N.

The Clerk presented a communication from Hayes Brothers, Contractors on Sections O and N, asking permission to continue to grade the right of way on said sections west of Rockwell street to a uniform surface, as set forth in the communication; and the communication was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the communication be ordered printed and placed on file, and the request not granted.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE COMMUNICATION:

"CHICAGO, August 14, 1894.

*Board of Trustees, Sanitary District of Chicago:*

GENTLEMEN—We have practically completed all the surface grading on Sec-



tions O and N, so far as we have right of way, and so far as any grading of the grounds has been directed, and we will be compelled to discharge our men and disband all our forces on this surface work unless some arrangement is made by the Board, whereby we may continue to grade to a uniform surface the right of way west of Rockwell street, the same as we have done between Western avenue and Robey street. This, we think, would be a decided improvement to the grounds, and would add no additional expense to the Sanitary District. It is important that we do as much as possible of the work that will be required to be done for railway and street embankments while the dry weather continues, as there will come a time during the wet weather of the fall, winter and spring that it will be entirely impracticable to do such work. We are anxious to do this work now, while the weather is suitable, and we want to avoid being asked to do it during wet weather. We have a force of good laborers living near by, who are anxious to retain their work, and we would be glad to give them employment, and we ask and hope your Board will find some way to keep this force from being disbanded.

Any material taken from the Main Channel for these embankments will advance the progress of the work.

Respectfully yours,

(Signed) HAYES BROS."

#### INVITATION TO VISIT UPPER ILLINOIS VALLEY.

The Clerk presented a communication from C. L. Stinson, City Clerk of Marseilles, Illinois, enclosing copy of resolutions adopted by the City Council of that city, inviting the Trustees and Officers of the District to visit the Upper Illinois Valley; and the communication and resolutions were read.

Mr. Boldenweck, seconded by Mr. Gilmore, moved that the communication and resolutions be ordered printed and referred to the Committee on Finance.

Mr. Eckhart, seconded by Mr. Cooley, moved as a substitute that the communication and resolutions be ordered printed and referred to the Committee on Federal Relations, with instructions to report back on the subject matter as soon as possible.

On roll-call, on the substitute, the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Russell and

Wenter—seven (7). Nays—Mr. Boldenweck—one (1).

Upon which result the President declared the substitute carried, and the communication and resolutions ordered printed and referred to the Committee on Federal Relations, with instructions to report back on the subject matter as soon as possible.

The following is

#### THE COMMUNICATION, WITH RESOLUTIONS:

"WHEREAS, The Trustees of the Sanitary District of Chicago have little personal acquaintance with the Illinois River above Peru; and

WHEREAS, The proposed additional flow from Lake Michigan will affect land, the value per acre of which above Peru is far greater than that below; and

WHEREAS, The people of the upper valley are as desirous as are those below Peru that the spirit of the joint resolution, adopted by the Legislature in 1889, shall be realized; therefore

Believing that an inspection by the Trustees and Officers of the said Sanitary District of the river and low lands above Peru will be of much value to the said District, and desiring that personal acquaintance with the said Trustees and Officers which will insure harmony of action in future needed legislation,

*Resolved*, By the City Council of the City of Marseilles, that we heartily endorse the preamble and resolutions relating to this matter, which were adopted by the City Council of the City of Ottawa on June 5th, and that we urge the said Trustees and Officers to personally inspect the Desplaines and Illinois Rivers from Joliet Lake to Peru at their earliest convenience.

*Resolved*, That the City Clerk be and he hereby is directed to forward a copy of these resolutions to the Clerk of said Sanitary District of Chicago.

The above preamble and resolutions were unanimously adopted by the City Council of the City of Marseilles at its regular meeting, held August 9th, 1894.

(Signed) C. L. STINSON,  
[SEAL] City Clerk."

#### RESIGNATION OF ATTORNEY AND RESOLUTION ON SAME.

The Clerk presented a communication from Mr. Orrin N. Carter, tendering his



resignation as Attorney of the District; and the communication was read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the resignation of Mr. Orrin N. Carter, as Attorney of the District, just read, be accepted, to take effect when his successor is duly elected and qualified.

The motion prevailed unanimously, and it was so ordered.

In connection with the communication, Mr. Altpeter presented a resolution relative to the services of Mr. Orrin N. Carter as Attorney of the District; and the resolution was read.

Mr. Altpeter, seconded by Mr. Boldenweck, moved the adoption of the resolution.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried and the resolution adopted.

The following is

#### THE COMMUNICATION:

“CHICAGO, Aug. 15, 1894.

*To the President and Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Owing to my nomination for County Judge, such demands may be made upon my time during the fall campaign as to make it difficult, if not impossible, for me to give all of my time to the duties of my present office. I hereby tender my resignation as Attorney of the District to take effect at once.

I desire to thank the members of the Board for the uniform courtesy and kindly assistance which they have always shown me.

Respectfully submitted,

(Signed) ORRIN N. CARTER.”

The following is

#### THE RESOLUTION:

“Resolved, That in accepting the resignation of Mr. Orrin N. Carter as Attorney of the District, this Board wishes to express its appreciation of the capable and efficient manner in which the duties of the position have been discharged by him during his occupancy of same; that this Board recognizes the substan-

tial aid which he has given it in securing the right of way of the District upon such favorable terms as have been obtained, and the intelligent and continuous activity with which he has assisted in carrying out the measures of this Board.”

#### ELECTION OF ATTORNEY.

Mr. Kelly, seconded by Messrs. Cooley and Boldenweck, then moved that Mr. George E. Dawson be elected Attorney of the Sanitary District of Chicago, vice Mr. Orrin N. Carter, resigned.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and Mr. George E. Dawson duly elected Attorney of the Sanitary District of Chicago, vice Mr. Orrin N. Carter, resigned.

#### EMPLOYMENT OF SPECIAL COUNSEL.

Mr. Kelly presented an order, authorizing and directing the Joint Committee on Judiciary and Finance, together with the President, to employ Mr. Orrin N. Carter as special counsel, as provided in the order; and the order was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Joint Committee on Judiciary and Finance, together with the President, authorized and directed to employ Mr. Orrin N. Carter as special counsel, as provided in the order.

The following is

#### THE ORDER:

“WHEREAS, It is desirable on the part of the District to have the counsel and assistance of the retiring Attorney in matters of business with the details of which he is familiar to such extent as he may be able to render same; therefore, be it

Ordered, That the Joint Committee on Judiciary and Finance, together with the President, be and they are hereby authorized and directed to make such arrangement with Mr. Orrin N. Carter as may seem desirable for such portion of his time as he may be able to devote to the interests of the District.”

## APPROPRIATION ORDINANCE.

Mr. Eckhart, Chairman, presented for the Committee on Finance, an ordinance appropriating funds of the District for the general corporate purposes of the District; and the ordinance was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved the passage of the ordinance.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried and the ordinance passed.

The following is

## THE ORDINANCE:

*"Be it ordained by the Board of Trustees of the Sanitary District of Chicago:*

SECTION 1. That there is hereby appropriated out of the funds of this District the sum of four million seven hundred and sixty-one thousand three hundred and sixty-six and 56 100 (\$4,761,366.56) dollars for the corporate purposes of this District.

SEC. 2. This ordinance shall be in force from and after its passage."

## SPECIFICATIONS FOR HIGHWAY SWING BRIDGES AT ROMEO, LEMONT AND WILLOW SPRINGS.

Mr. Cooley presented an order, directing that the specifications for highway swing bridges at Romeo, Lemont and Willow Springs, now in preparation, be submitted to the Joint Committee on

Engineering and Finance for their report, as provided in the order; and the order was read.

Mr. Cooley, seconded by Mr. Kelly, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the order adopted.

This following is

## THE ORDER:

*"Ordered,* That the specifications for highway swing bridges at Romeo, Lemont and Willow Springs, which are now being prepared by the Chief Engineer, be submitted to the Joint Committee on Engineering and Finance, which Committee shall report the said specifications to this Board, with their recommendations, at the next regular meeting."

## OPENING OF BIDS FOR \$3,000,000 FIVE PER CENT BONDS—THIRD ISSUE.

The President then announced that in pursuance of the advertisement, dated August 1, 1894, inviting bids for the purchase of \$3,000,000 five per cent. bonds of the District, being the third issue, the Board would now proceed to the opening and consideration of the bids received for the said bonds up to 12 o'clock, noon, of August 15, 1894,

The Clerk then presented and opened seven (7) bids received for the purchase of said issue of bonds, as shown in the following

## SUMMARY OF BIDDERS:

NO.	NAME.	LOCATION.	AMOUNT BID FOR.	RATE.	CHECK DEPOS- ITED.
1	Eric J. Nelson.....	Chicago.....	\$ 25,000	100½	\$ 753 75
2	Lee, Higginson & Co.....	Boston.....	1,000,000	100 $\frac{1\frac{1}{2}6}{1000}$	30,000 00
3	First National Bank of Chicago	Chicago.....	750,000	100 $\frac{583}{1000}+$	22,500 00
4	Blair & Co.....	New York City	3,000,000	100 $\frac{375}{1000}$	90,000 00
5	A. O. Slaughter & Co.....	Chicago .....	100,000	100 $\frac{25}{1000}$	3,000 00
6	P. C. Peterson .....	Chicago .....	100,000	101½	3,000 00
7	N. W. Harris & Co.....	Chicago .....	3,000,000	100 $\frac{5707}{10000}$	90,000 00

## SCHEDULE OF BIDS

For \$3,000,000, Five Per Cent (3d issue) Bonds, opened August 15, 1894.

NO.	NAME.	AMOUNT BID FOR.				
		\$25,000	\$100,000	\$750,000	\$ 1,000,000	\$ 3,000,000
1	Eric J. Nelson .....	\$125 prem- ium, or 100½.				
2	Lee, Higginson & Co.....				{ \$1,001.26 premium, or 100 $\frac{126}{1000}$	
3	First National Bank of Chicago .....			{ \$7,500 pre- mium, ac- crued in- terest to Sept. 1 to go to buy- er or 101= \$4,375 net premium, or 100 $\frac{583}{1000}+$		
4	Blair & Co. ....					{ \$11,250 pre- mium, or 100¾.
5	A. O. Slaughter & Co.....	{ \$625 pre- mium, or 100¾.				
6	P. C. Peterson .....		{ \$1,500 pre mium, or 101 $\frac{50}{1000}$ .			
7	N. W. Harris & Co....					{ \$17,121 pre- mium, or 100 $\frac{5707}{10000}$ .



The following are

THE BIDS IN DETAIL:

(1) "CHICAGO, August 15, 1894.

*Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I propose to purchase, at 100% and accrued interest, twenty-five thousand (\$25,000 00) dollars of your bonds that are advertised to be sold this day.

Enclosed please find check on National Bank of Illinois for \$753.75.

Yours respectfully,

(Signed) ERIC J. NELSON.

(1 Enclosure.)

(2) "BOSTON, August 13, 1894.

*To the Board of Trustees, Sanitary District, Chicago, Ill.:*

GENTLEMEN—Referring to your advertisement asking for proposals for \$3,000,000 Sanitary District of Chicago 5 per cent Bonds, we bid you one thousand and one and 26-100 dollars and accrued interest (100 126-1000 and accrued interest) for each and every bond up to \$1,000,000, provided that 1-20 of this \$1,000,000 shall mature each consecutive year beginning July 1, 1895. We enclose herewith our certified cheque for \$30,000, being 3 per cent of the amount of our bid.

We make this bid subject to the favourable opinion of our attorneys as to the legality of the issue.

If the bonds should be awarded to us, please send us all the papers necessary for our counsel to examine.

Yours truly,

(Signed) LEE, HIGGINSON & Co."

(1 enclosure.)

(3)

"FIRST NATIONAL BANK OF CHICAGO, }  
BOND & FOREIGN EXCHANGE DEPT. }  
CHICAGO, August 15, 1894.

*Messrs. Board of Trustees, Sanitary District of Chicago, City:*

GENTLEMEN—The First National Bank of Chicago will pay on September 1st, par and 1 per cent flat (that is \$757,500—seven hundred and fifty-seven thousand five hundred dollars, accrued interest to buyer) for \$750,000 of 5 per cent bonds of the Sanitary District of Chicago, to be issued in accordance with your advertisement of August 1, 1894. Said bonds to be as nearly as possi-

ble in equal amounts of each maturity, from one to twenty years inclusive, and satisfactory evidence of the legality of issue furnished.

We hand you herein our cheque, \$22,500, on account of said bid.

Respectfully yours,

(Signed) G. D. BOULTON,  
*Manager."*

(1 enclosure.)

(4) "CHICAGO, Ill., Aug. 15, 1894.

*Thomas F. Judge Esq., Clerk of the Sanitary District of Chicago, Chicago, Ill.:*

DEAR SIR—For the present and third issue of three million (\$3,000,000) dollars' worth of bonds of the Sanitary District of Chicago, as advertised, we will pay par and a premium of three-eighths ( $\frac{3}{8}$ ) of one per cent, amounting in the aggregate to (\$3,011,250.00.) And in addition we agree to pay accrued interest to date of delivery of the bonds.

Accompanying this bid, (as a guarantee of good faith), is a certified check for (\$90,000.00), the same to be returned in the event of our bid not being accepted.

Very respt.,

(Signed) BLAIR & Co.,  
33 Wall St., N. Y.,  
Per B. A. SEITZ,  
*Agent."*

(1 enclosure.)

(5) "CHICAGO, Ill., Aug. 15, 1894.

*To the Board of Trustees of the Sanitary District of Chicago, Room H, 526 Rialto Building, Chicago, Ills.:*

GENTLEMEN—We hereby submit to you a bid of 100% for one hundred thousand (\$100,000) dollars of the third issue of three million (\$3,000,000) dollars 5 per cent bonds of the Sanitary District of Chicago; said one hundred thousand (\$100,000) dollars of said bonds hereby bid for to be delivered at one time, and to be so pro rated that five thousand (\$5,000) dollars of the said one hundred thousand (\$100,000) dollars of said bonds shall mature in each year from July 1st, 1895, to July 1st, 1914, both inclusive.

We enclose herewith our certified check for three thousand (\$3,000) dollars, being 3 per cent of the amount of bonds hereby

bid for, in accordance with the requirement of your Board in advertising for bids.

Yours very truly,

(Signed) A. O. SLAUGHTER & Co."

(1 enclosure.)

(6) "CHICAGO, Aug. 15, 1894.

*To the Board of Trustees, Sanitary District of Chicago:*

GENTLEMEN—I respectfully bid 101 50-100 and interest for \$100,000 of the 5 per cent Sanitary District bonds, and enclose herein a certified check for \$3,000.

Respectfully,

(Signed) P. C. PETERSON,  
70 E. Washington St., Chicago."

(1 enclosure.)

(7) "CHICAGO, 15th August, 1894.

*To the Honorable Board of Trustees of the Sanitary District of Chicago, City:*

GENTLEMEN—Referring to your advertisement offering for sale three million (\$3,000,000) dollars of five per cent (5 per cent) bonds of the Sanitary District of Chicago, bearing date of August 1st, 1894, we will pay for all of said bonds, legally and regularly issued, par and accrued interest, and a premium of \$17,121.00.

Certified check for ninety thousand (\$90,000) dollars herewith.

Yours truly,

(Signed) N. W. HARRIS & Co."

(1 enclosure.)

BIDS FOR BONDS REFERRED TO COMMITTEE ON FINANCE AND ADJOURNMENT TO SPECIAL TIME.

Mr. Eckhart, seconded by Mr. Kelly, then moved that the bids for five per cent. bonds, as read and shown above, be tabulated, printed, and referred to the Committee on Finance, with instructions to report back to the Board at an adjourned meeting, to be held Friday, August 17, 1894, at 1:30 o'clock, P. M., and that when the Board adjourn it do adjourn to meet at that time.

The motion prevailed unanimously, and it was so ordered.

#### ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Kelly, the Board then adjourned to meet Friday, August 17, 1894,

at 1:30 o'clock P. M., pursuant to motion.

THOS. F. JUDGE,

*Clerk.*

#### ADJOURNED MEETING.

The adjourned session of the two hundred and thirty-fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Friday, August 17, 1894, at 1:30 o'clock P. M., pursuant to motion.

President Wenter called the Board to order.

On roll call Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6), and subsequently Messrs. Altpeter and Gilmore, making a total of eight (8) members, were present

#### REPORT ON BIDS FOR \$3,000,000 FIVE PER CENT BONDS—THIRD ISSUE.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, recommending that the bid of Messrs. N. W. Harris & Co., of Chicago, for the entire issue of \$3,000,000 five per cent bonds of the District, being the third issue, be accepted, and that the checks of each and all of the other bidders be returned, as provided in the report, said report being accompanied by all the bids, and an agreement in duplicate between N. W. Harris & Co. and the District, and further recommending that the President and Clerk be authorized and directed to execute the said agreement on behalf of the District, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, with accompanying agreement, ordered printed, and, with all enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreement, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, with accompanying agreement, ordered printed, and, with all enclosures, placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed



to execute the said agreement, on behalf of the District, as provided in the report.

The following is

THE REPORT, WITH ACCOMPANYING AGREEMENT:

"CHICAGO, August 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee on Finance, to whom your Honorable Body at its meeting of August 15, 1894, referred the bids received for the purchase of three million (\$3,000,000) dollars of the five (5) per cent bonds of this District, being the third issue, has considered the same, and now recommends that as N. W. Harris & Co., of Chicago, have made the highest unconditional bid for the whole issue of said bonds, their bid therefor be accepted, and that the President and Clerk of the Board be instructed to execute with said N. W. Harris & Co., the contract transmitted herewith for the delivery of said bonds.

Your Committee further recommends that the Clerk be instructed to return to each and all of the other bidders for said bonds the checks deposited by them with their bids for said bonds.

Respectfully submitted,

(Signed)

B. A. ECKHART,

*Chairman.*

W. H. RUSSELL,

THOMAS KELLY,

*Committee on Finance."*

(Accompanied by agreement in duplicate and seven (7) bids.)

(The Agreement:)

"*This Agreement*, Made and entered into this seventeenth day of August, A. D. 1894, by and between the Sanitary District of Chicago, party of the first part, and N. W. Harris, D. J. Harris, A. G. Farr and N. W. Halsey, partners, doing business under the firm name and style of N. W. Harris & Co., of the second part.

*Witnesseth*, That said party of the first part does hereby covenant, contract and agree, for the consideration hereinafter set forth, to issue and deliver to said party of the second part, three million (\$3,000,000) dollars' worth of its interest-bearing coupon bonds; said bonds to be of the denomination

of one thousand (\$1,000) dollars each; all of said bonds to bear date, the first day of August, A. D. 1894, and to bear interest at five (5) per cent per annum, from date thereof, payable semi-annually; said bonds to be payable at the times, in the sums, and upon the terms and conditions set forth in an ordinance passed by the Board of Trustees of said Sanitary District on August 1, 1894.

In consideration of the issue and delivery of said bonds, as above set forth, said party of the second party hereby covenants, contracts and agrees to pay and give for said bonds par, a premium of seventeen thousand one hundred and twenty-one (\$17,121) dollars, and all interest accrued upon said bonds to the date of delivery; and they further agree to receive and pay for said bonds at the above rate on the following dates, and in the following amounts, to-wit:

\$1,000,000 and accrued interest on or before September 1st, 1894.

\$1,000,000 and accrued interest on October 1st, 1894.

\$1,000,000 and accrued interest on November 1st, 1894.

The party of the second part to have the right to take the bonds faster than the times above specified.

It is understood and agreed by and between the parties hereto that said party of the second part may, at their option, call for and have delivered to them, at the time of any delivery of bonds hereunder, bonds of any maturities, provided the average maturities so called for do not exceed the average maturity of the three million (\$3,000,000) dollars of bonds covered by this contract.

It is further agreed by the parties hereto that upon each delivery of said bonds, as aforesaid, said party of the second part shall pay such proportion of said premium of seventeen thousand one hundred and twenty-one (\$17,121) dollars, as the bonds delivered at that particular time bear to the whole amount of bonds to be delivered hereunder.

It is further agreed by the parties hereto, that the ninety thousand (\$90,000) dollars certified check which has been deposited with the Clerk of the party of the first part by said party of the second part shall be held by said Clerk until the first delivery



of bonds hereunder, and that then and thereafter the proceeds thereof be refunded to said party of the second part in the following manner:

Whenever any of said bonds are delivered to said party of the second part, there shall, also, be delivered to them, by said party of the first part, such proportion of the amount of said check, as the amount of bonds then delivered shall bear to the total amount to be delivered hereunder.

It is further covenanted and agreed by said party of the first part that the bonds herein mentioned shall be legally and regularly issued by it. This contract is executed in duplicate.

*In Witness Whereof*, on the day and year first above written, the said Sanitary District of Chicago has caused these presents to be signed by the President of its Board of Trustees, and attested by its Clerk, and its corporate seal to be hereunto affixed, and said party of the second part have hereunto set their hands and seals."

OATH OF OFFICE AND BOND OF ATTORNEY.

The Clerk presented the oath of office

and bond of Mr. George E. Dawson, as Attorney of the District, in the penal sum of twenty thousand (\$20,000) dollars, with Charles E. Manierre and John T. Manierre as sureties; and the oath of office and bond were read.

Mr. Kelly, seconded by Mr. Russell, moved that the oath of office and bond of Mr. George E. Dawson, as Attorney of the District, just presented, be approved and ordered filed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the oath of office and bond of Mr. George E. Dawson, as Attorney of the District, just presented, approved and ordered filed.

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Kelly, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

August 17,]

—2113—

[1894.

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

---

AUGUST 22, 1894.

---

#### OFFICIAL RECORD.

*Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and thirty-fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, August 22, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Cooley, Eckhart, Gilmore, Russell and Wenter—six (6), and subsequently Messrs. Boldenweck and Prendergast, making a total of eight (8) members, were present.

#### MINUTES.

The minutes of the regular meeting

held August 15, 1894, and of the adjourned session of the same regular meeting, held August 17, 1894, were approved as printed, on motion of Mr. Eckhart, seconded by Mr. Russell.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### *Construction Account—*

Griffiths & McDermott (Sec. 1, Aug. 16, 1894)	\$10,309 45
McArthur Bros. (Sec. 2, Aug. 16, 1894).....	8,583 75
Gilman & Co. (Sec. 3, Aug. 16, 1894).....	19,714 45
McArthur Bros. (Sec. 4, Aug. 16, 1894).....	9,685 46
The Qualey Construc- tion Co. (Sec. 5, Aug. 16, 1894).....	11,730 25
Mason, Hoge & Co. (Sec. 6, Aug. 16, 1894)	6,567 75



Mason, Hoge & Co. (Sec. 7, Aug. 16, 1894)	\$12,845 44
Mason, Hoge, King & Co. (Sec. 8, Aug. 16, 1894) .....	24,527 34
Halvorson, Richards & Co. (Sec. 9, Aug. 16, 1894) .....	10,631 48
E. D. Smith & Co. (Sec. 10, Aug. 16, 1894)....	18,130 00
Mason, Hoge & Co. (Sec. 11, Aug. 16, 1894)	14,146 12
Mason, Hoge & Co. (Sec. 12, Aug. 16, 1894)	10,609 60
Mason, Hoge & Co., (Sec. 13, Aug. 16, 1894)	19,425 65
Smith & Eastman (Sec. 14, Aug. 16, 1894)....	8,187 38
Heldmaier & Neu (Sec. A, Aug. 16, 1894)....	23,407 60
Western Dredging & Improvement Co. (Sec. C, Aug. 16, 1894)	5,143 30
E. D. Smith & Co. (Sec. D, Aug. 16, 1894) .....	8,098 11
Ricker, Lee & Co. (Sec. F, Aug. 16, 1894) ....	2,094 34
Gahan & Byrne (Sec. G, Aug. 16, 1894).....	3,322 45
Gahan & Byrne. (Sec. H, Aug. 16, 1894)....	457 76
Christie & Lowe (Sec. I, Aug. 16, 1894).....	10,631 25
Christie & Lowe. (Sec. K, Aug. 16, 1894).....	3,858 75
The Heidenreich Co. (Sec. L, Aug. 16, 1894)	4,142 17
The Heidenreich Co. (Sec. M, Aug. 16, 1894)	2,255 72
McMahon & Mont- gomery Co., et al., (Sec. O, Aug. 16, 1894)	8,665 65
Heldmaier & Neu (Sec. A, (levee to Station 710, Aug. 16, 1894)....	4,698 00
Mason, Hoge & Co. (Sec. 7, dimension stone, Aug. 16, 1894).	800 00
	<hr/> \$262,669 18

## GENERAL ACCOUNT.

Chicago Edison Co. (electric lighting)...	\$ 21 36
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## POLICE DEPARTMENT.

Hibbard, Spencer, Bart- lett & Co. (lamp chim- neys) .....	\$ 4 90
Grand total .....	<hr/> \$262,695 44

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Russell and Wenter—seven (7). Nays—None.

Upon which result the President de-

clared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending August 18, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, August 22, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending August 18, 1894, as the same have been reported to me:

Engineering Department.....	124
Clerical Department.....	4
Law Department.....	8
Treasury Department.....	1
Police Department.....	44

Total employes..... 

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181

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

## REPORT ON SECTION E OF MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer, with reference to Section E of the Main Channel; and the report was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the report be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

## THE REPORT:

“CHICAGO, August 22, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I visited Section E on yesterday and found ten (10) wheel scrapers and one plow at work. One four-inch centrifugal pump was also running. Mr. Kenefick was on the section and in-

formed me that he would start two more pumps and was arranging to start up a steam shovel. It will take a few days to determine whether this is a bona fide resumption of work or merely a technical compliance with your order.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

PAYMENT OF TAXES ON ADDITIONAL ACQUIRED RIGHT OF WAY LANDS.

The Clerk presented a report from the Attorney, accompanied by schedule, recommending that the Clerk be authorized and directed to pay, on the voucher of the Attorney, the amount of the taxes for 1893 on certain additional right of way lands, as set forth in the report and accompanying schedule; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosure, placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to pay, on the voucher of the Attorney, to the County Treasurer of Cook County, the amount of the taxes for 1893, on said additional right of way lands, as set forth in the report and accompanying schedule.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to pay, on the voucher of the Attorney, to the County Treasurer of Cook County, the amount of the taxes for 1893, on said additional right of way lands, as set forth in the report and accompanying schedule.

The following is

THE REPORT:

"CHICAGO, August 22nd, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On May 23, 1894, in a communication to your Honorable Body the Attorney recommended the payment of certain accrued taxes. One tract, it was stated, was omitted from the schedule then submitted in order to adjust the

the amount of reduction which should have been made on account of Santa Fe lands included in the assessment.

The Attorney caused formal objection to be made in the County Court to the entering of judgment for the amount assessed against this tract, being the George Wilshire tract. The objection was sustained by the Court and the amount reduced about two hundred dollars (\$200). Certain lots in Manchester came into the possession of the District subject to taxes for 1893, nearly all of them having been obtained by condemnation. A statement is attached hereto giving description of the property and amounts due. This, it is believed, will close the tax account for the taxes of 1893.

I would recommend that the Clerk be authorized and directed to pay, on the voucher of the Attorney, to Charles Kern, Treasurer of Cook County, Illinois, the sum of seven hundred and thirty-two and 67-100 (\$732.67) dollars in full payment of taxes for 1893 payable by the Sanitary District on the lands described on the statement hereto attached.

Respectfully submitted,

(Signed) GEO. E. DAWSON,  
*Attorney."*  
(One (1) enclosure.)

REPORT ON TESTING OF CEMENT FOR RETAINING WALLS.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a report from the Chief Engineer to that Committee, concerning the testing of cement used in constructing the masonry retaining walls on the works of the District, and recommending that all cements be tested as delivered on the work, as set forth in the report; and the report was read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.



The following is

THE REPORT:

"CHICAGO, August 22, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance has had under advisement for some time the question of the proper testing of cement, to be used in constructing the masonry upon the works of the District.

The Chief Engineer recommends that all cements be tested as delivered on the work, by a force under the immediate direction of the Chief Engineer, and the Committee recommends that this plan be adopted, as set forth in the letter of the Chief Engineer submitted herewith, and that he be directed to make requisition for such materials and supplies as may be required for the purpose.

Very respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

B. A. ECKHART,

W. H. RUSSELL,

WM. BOLDENWECK,

JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(Accompanied by report of Chief Engineer.)

REPORT ON SPECIFICATIONS FOR HIGHWAY SWING BRIDGES AT ROMEO, LEMONT AND WILLOW SPRINGS.

Mr. Cooley, Chairman, made a verbal report for the Joint Committee on Engineering and Finance, with reference to the specifications for highway swing bridges at Romeo, Lemont and Willow Springs, which matter was referred to that Committee at the meeting held August 15, 1894, (page 2107 of the Proceedings) stating that the Committee were not yet ready to report definite conclusions, but would present their report at the next meeting.

COMMUNICATION FROM CONTRACTORS ON SECTION E.

The Clerk presented a communication from Messrs. Streeter & Kenefick, Contractors on Section E of the Main Channel, stating that they had resumed work on said section, under their contract; and the communication was read.

Mr. Boldenweck, seconded by Mr. Altpeter, moved that the communication be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE COMMUNICATION:

"CHICAGO, Ill., August 20, 1894.

*To the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your letter of August 10th, containing copy of resolution adopted by your Board on the 8th day of August, 1894, was received by us.

You are hereby notified that we have this day resumed work on Section E, under our contract with you. It must be expressly understood, however, that by resuming work we do not waive or release any of our rights, claims or demands against you, and that we expressly deny your right to forfeit our contract, as threatened by you in said communication.

You are also notified that we have placed the matter of our claims in the hands of our Attorneys, Messrs. Collins, Goodrich, Darrow & Vincent, who are instructed to begin suit at the earliest possible day, for the purpose of determining in an amicable manner, and as speedily as possible, all controversies between us.

We have resolved to take this course because it is our desire to act in the utmost good faith with your Board, notwithstanding the fact we appreciate that to resume work without the re-adjustment and re-classification asked for by us, and without your having consented to what we are convinced is a just demand, that the material which you insist upon calling "glacial drift," should be classified as "solid rock," and paid for at solid rock prices, is a tremendous hardship upon us.

We shall of course expect to be paid one dollar per yard for all of this material, which you regard as "glacial drift," and which we regard as "solid rock," excavated. We have no desire to avoid removing any material which comes under the terms of our contract, but you doubtless appreciate that a very large proportion of the material to be removed by us lies under this ledge, for which you do not seem to be willing to allow us the proper classification, and until it is removed, it will not be possible, of course, to excavate what lies under it.

Yours truly,

(Signed)

STREETER & KENEFICK."



## PRESENTATION OF BIDS ON SECTION 15 OF MAIN CHANNEL.

The President then announced that in conformity with the advertisement of June 20, 1894, published for sixty (60) days as required by the Sanitary District Act, inviting proposals for the work of excavating Section 15 of the Main Channel, the Board would now proceed to open the bids received in response to same.

The Clerk then presented and opened bids as shown by the following

## SCHEDULE OF BIDS:

*Section 15.*

No. of Bids.	NAME OF BIDDERS.	Checks Deposited.
1	E. D. Smith & Co., Romeoville, Ill.....	\$ 5 000
2	Christie, Lowe & Co. Chicago, Ill.....	5,000
3	C. E. Loss, Chicago, Ill.....	5,000
4	Lewis M. Loss, Chicago, Ill.....	5,000
5	Heldmaier & Neu, Chicago, Ill.....	5,000
6	Mallory, Cushing & Co., Omaha, Neb.....	5 000
7	Campbell, Dennis & Co., Joliet, Ill.....	5,000
8	McDonald & Penfield, Fremont, Neb.....	5,000
9	J. D. Moran Manufacturing and Construction Co., St. Paul, Minn....	5,000
10	Dwyer, McNaughton, & Co., Buffalo, N. Y.....	5,000
11	Fruin-Bambrick Construction Company, St. Louis, Mo.....	5 000
12	Mason. Hoge & Co., Frankfort, Ky.....	5,000
13	Hiero B. Herr & Co., Chicago, Ill.....	5,000
14	Halvorson, Richards & Co., Minneapolis, Minn.....	5 000
15	Andrew Onderdonk, Chicago, Ill.....	5 000
16	Rickert, King & Clement, New York, N. Y.....	5 000
17	Panama Construction Company, Chicago, Ill.....	5,000
18	Lauer, Hagaman & Co., Rochester, N. Y.....	5,000
19	F. C. Weir, Cincinnati, O.....	5,000
20	Winston Bros. & Stevens, Minneapolis, Minn.....	5 000
21	R. A. Malone & Sons, Philadelphia, Pa.....	5 000
22	J. A. McMurtrie & Co., Denver, Colo.....	5 000
23	Ezekiel Smith, Chicago, Ill.....	5,000
24	Wright, Meysenburg, Sinclair & Carry, Chicago, Ill.....	5,000
25	Henkel & Sullivan, Cincinnati, Ohio.....	5,000
26	Hayes Bros., Janesville, Wis.....	5,000
27	Powell, Mitchell & Co., Marquette, Mich.....	5,000
28	W. F. Callahan, Omaha, Neb.....	5,000
29	Moorman, Winfree & Co., Lynchburg, Va.....	5,000
30	Dawson & Tilden, Chicago, Ill.....	5,000
31	Hill-O'Meara Construction Company, St. Louis, Mo.....	5,000
32	Grace & Hyde Co., Chicago, Ill.....	5,000
33	Prendergast & Murphy, Chicago, Ill.....	5,000
34	Angus & Gindele, Chicago, Ill.....	5,000
35	Probst Construction Company, Chicago, Ill.....	5,000

## THE FOLLOWING ARE THE BIDS IN DETAIL:

## SECTION 15.

BID NO 1—E. D. SMITH &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.25	\$ 8 825 00
Solid Rock.....	639 000	.68	434 520 00
Retaining Wall.....	40,000	3.25	130,000 00
Total.....			\$573,345 00

BID NO. 2—CHRISTIE, LOWE &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.40	\$ 14,120 00
Solid Rock.....	639,000	.65	415,350 00
Retaining Wall.....	40,000	3.10	124,000 00
Total.....			\$553,470 00

BID NO. 3—C. E. LOSS.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.17	\$ 6,001 00
Solid Rock.....	639,000	.83	530,370 00
Retaining Wall.....	40,000	3.00	120,000 00
Total.....			\$656,371 00

BID NO. 4 LEWIS M. LOSS.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.25	\$ 8,825 00
Solid Rock.....	639,000	.69½	444,105 00
Retaining Wall.....	40,000	2.17	86,800 00
Total.....			\$539,730 00

BID NO. 5—HELDMAIER &amp; NEU.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.25	\$ 9,178 00
Solid Rock.....	639,000	.68 9-10	440,271 00
Retaining Wall.....	40,000	2.50	100,000 00
Total.....			\$549,449 00

## BID NO. 6—MALLORY, CUSHING &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.34	\$ 12 002 00
Solid Rock.....	639 000	.63	402 570 00
Retaining Wall.....	40,000	2.95	118 000 00
Total.....			\$532,572 00

## BID NO. 7—CAMPBELL, DENNIS &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.20	\$ 7 060 00
Solid Rock.....	639 000	.63	402 570 00
Retaining Wall.....	40,000	2.65	106,000 00
Total.....			\$515,630 00

## BID NO. 8—M'DONALD &amp; PENFIELD.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.35	\$ 12,355 00
Solid Rock.....	639,000	.67½	431,325 00
Retaining Wall.....	40,000	2.60	104,000 00
Total.....			\$547,680 00

## BID NO. 9—J. D. MORAN MANUFACTURING AND CONSTRUCTION CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.20	\$ 7,060 00
Solid Rock.....	639,000	.68	434,520 00
Retaining Wall.....	40,000	2.75	110,000 00
Total.....			\$551,580 00

## BID NO. 10—DWYER, M'NAUGHTON &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.35	\$ 12,355 00
Solid Rock.....	639,000	.72½	463,275 00
Retaining Wall.....	40,000	3.25	130,000 00
Total.....			\$605 630 00



## BID NO. 11—FRUIN-BAMBRICK CONSTRUCTION CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.25	\$ 8,825 00
Solid Rock.....	639,000	.72 6-10	463 914 00
Retaining Wall.....	40,000	3.00	120 000 00
Total.....			\$592 739 00

## BID NO. 12—MASON, HOGE &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.27	\$ 9 531 00
Solid Rock.....	639,000	.73	466 470 00
Retaining Wall.....	40,000	3.55	142,000 00
Total.....			\$618,001 00

## BID NO. 13—HIERO B. HERR &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.25	\$ 8 825 00
Solid Rock.....	639,000	.73½	469 655 00
Retaining Wall.....	40,000	2.75	110,000 00
Total.....			\$588,490 00

## BID NO 14—HALVORSON, RICHARDS &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.25	\$ 8,825 00
Solid Rock.....	639 000	.69	440,910 00
Retaining Wall.....	40,000	2.70	108,000 00
Total.....			\$537,735 00

## BID NO. 15—ANDREW ONDERDONK.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.30	\$ 10,590 00
Solid Rock.....	639 000	.63	402 570 00
Retaining Wall.....	40,000	3.00	120,000 00
Total.....			\$533,160 00

## BID NO. 16—RICKERT, KING &amp; CLEMENT.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.30	\$ 10,590 00
Solid Rock.....	639,000	.66	421,740 00
Retaining Wall.....	40,000	3.20	128,000 00
Total.....			\$560,330 00

## BID NO. 17—PANAMA CONSTRUCTION CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.35	\$ 12,355 00
Solid Rock.....	639,000	.67	428,130 00
Retaining Wall.....	40,000	3.00	120,000 00
Total.....			\$560,485 00

## BID NO. 18—LAUER, HAGAMAN &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.29½	\$ 10,413 50
Solid Rock.....	639,000	.72½	463,275 00
Retaining Wall.....	40,000	3.71	148,400 00
Total.....			\$622,088 50

## BID NO. 19—F. C. WEIR.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.35	\$ 12,355 00
Solid Rock.....	639,000	.64	408,960 00
Retaining Wall.....	40,000	3.00	120,000 00
Total.....			\$541,315 00

## BID NO. 20—WINSTON BROS. &amp; STEVENS.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.22	\$ 7,766 00
Solid Rock.....	639,000	.72	460,080 00
Retaining Wall.....	40,000	3.72	148,800 00
Total.....			\$616,646 00

## BID NO. 21—R. A. MALONE &amp; SONS.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.38	\$ 13,414 00
Solid Rock.....	639 000	.74	472,860 00
Retaining Wall.....	40,000	2.60	104,000 00
Total.....			\$590,274 00

## BID NO. 22—J. A. M'MURTRIE &amp; CO

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.30	\$ 10,590 00
Solid Rock.....	639,000	.71	453,690 00
Retaining Wall.....	40,000	2.25	90,000 00
Total.....			\$554,280 00

## BID NO. 23—EZEKIEL SMITH.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.30	\$ 10,590 00
Solid Rock.....	639,000	.68	434,520 00
Retaining Wall.....	40,000	3.25	130 000 00
Total.....			\$575,110 00

## BID NO. 24—WRIGHT, MEYSENBURG, SINCLAIR &amp; CARRY.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.19	\$ 6 707 00
Solid Rock.....	639,000	.59	377,010 00
Retaining Wall.....	40,000	2.35	94 000 00
Total.....			\$477,717 00

## BID NO. 25—HENKEL &amp; SULLIVAN.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.30	\$ 10,590 00
Solid Rock.....	639 000	.74	472,860 00
Retaining Wall.....	40,000	4.25	170,000 00
Total.....			\$653 450 00



August 22,]

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## BID NO. 26—HAYES BROS.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.26	\$ 9,178 00
Solid Rock.....	639 000	.69	440,910 00
Retaining Wall.....	40,000	3.20	128,000 00
Total.....			\$578,088 00

## BID NO. 27—POWELL, MICHELL &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.25	\$ 8,825 00
Solid Rock.....	639 000	.68	434 520 00
Retaining Wall.....	40,000	3.25	130,000 00
Total.....			\$573,345 00

## BID NO. 28—W. F. CALLAHAN.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.19 $\frac{1}{2}$	\$ 6 883 50
Solid Rock.....	639 000	.69 $\frac{1}{2}$	444 105 00
Retaining Wall.....	40,000	2.75	110,000 00
Total.....			\$560,988 50

## BID NO. 29—MOORMAN, WINFREE &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.35	\$ 12 355 00
Solid Rock.....	639 000	.70 $\frac{1}{2}$	450,495 00
Retaining Wall.....	40,000	3.75	150,000 00
Total.....			\$612,850 00

## BID NO. 30—DAWSON &amp; TILDEN.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.25	\$ 8,825 00
Solid Rock.....	639 000	.85	543,150 00
Retaining Wall.....	40,000	3.25	130,000 00
Total.....			\$681,975 00

## BID NO. 31—HILL-O'MEARA CONSTRUCTION COMPANY.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.30	\$ 10,590 00
Solid Rock.....	639,000	.69½	444,105 00
Retaining Wall.....	40,000	2.15	86,000 00
Total.....			\$540,695 00

## BID NO. 32—GRACE &amp; HYDE CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.18	\$ 6 354 00
Solid Rock.....	639,000	.77	492 030 00
Retaining Wall.....	40,000	2.40	96 000 00
Total.....			\$594,384 00

## BID NO. 33—PRENDERGAST &amp; MURPHY.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.19	\$ 6,707 00
Solid Rock.....	639,000	.73	466,470 00
Retaining Wall.....	40,000	3.00	120,000 00
Total.....			\$593,177 00

## BID NO. 34—ANGUS &amp; GINDELE.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35 300	\$0.29½	\$ 10,413 50
Solid Rock.....	639 000	.74½	476.055 00
Retaining Wall.....	40,000	3.38	135,200 00
Total.....			\$621,668 50

## BID NO. 35—PROBST CONSTRUCTION CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	35,300	\$0.60	\$ 21.180 00
Solid Rock.....	639,000	.74	472.860 00
Retaining Wall.....	40,000	3.00	120,000 00
Total.....			\$614,040 00

BIDS TO BE TABULATED AND REFERRED  
TO JOINT COMMITTEE ON ENGIN-  
EERING AND FINANCE.

Mr. Gilmore, seconded by Mr. Boldenweck, moved that the bids just received be compiled, summarized and tabulated by the Chief Engineer, incorporated in Proceedings, and the subject matter of the bids be referred to the Joint Committee on Engineering and Finance, with

instructions to report back at the next meeting.

The motion prevailed unanimously, and it was so ordered.

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*



August 22, |

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[1894.







# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

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AUGUST 29, 1894.

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#### OFFICIAL RECORD.

*Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and thirty-sixth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, August 29, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6) members, were present.

#### MINUTES.

The minutes of the regular meeting held August 22, 1894, were approved as

printed, on motion of Mr. Kelly, seconded by Mr. Altpeter.

#### WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending August 25, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“CHICAGO, August 29, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending August

25, 1894, as the same have been reported to me:

Engineering Department.....	125
Clerical Department.....	4
Law Department.....	7
Treasury Department.....	1
Police Department.....	47

Total employes..... 184

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

COMPLETION AND DELIVERY OF \$3,000,000  
FIVE PER CENT BONDS—THIRD ISSUE.

The Clerk presented a report, accompanied by a receipt from the Treasurer of the District, with reference to the completion and delivery to the Treasurer of the District of \$3,000,000 of signed and sealed five per cent bonds of the District, (third issue) issued under ordinance of August 1, 1894, (Page 2073 of the Proceedings.)

The report was read, and, by unanimous consent, with accompanying receipt, was ordered printed and placed on file.

The following is

THE REPORT, WITH ACCOMPANYING RECEIPT:

"CHICAGO, August 29, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to report that I have this day delivered to Mr. Melville E. Stone, Treasurer of the District, as shown by the receipt transmitted herewith, the entire issue of three million (\$3,000,000) dollars of five per cent bonds of the District, being the third issue, signed by the President and Clerk and sealed with the seal of the District, complete and ready for delivery to the purchasers, Messrs. N. W. Harris & Company, the same being the bonds issued under ordinance of August 1, 1894, (page 2073 of the Proceedings).

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

"CHICAGO, August 29, 1894.

*Received of Thos. F. Judge, Clerk of the Sanitary District of Chicago, three thousand (3000) signed and sealed five per cent (5%) bonds, for the sum of one thousand (\$1,000) dollars each, of the San-*

itary District of Chicago, numbered from No. 5001 to No. 8000, consecutively, with interest coupons attached, and maturing as follows:

Nos. 5001 to 5150, July 1, 1895.
Nos. 5151 to 5300, July 1, 1896.
Nos. 5301 to 5450, July 1, 1897.
Nos. 5451 to 5600, July 1, 1898.
Nos. 5601 to 5750, July 1, 1899.
Nos. 5751 to 5900, July 1, 1900.
Nos. 5901 to 6050, July 1, 1901.
Nos. 6051 to 6200, July 1, 1902.
Nos. 6201 to 6350, July 1, 1903.
Nos. 6351 to 6500, July 1, 1904.
Nos. 6501 to 6650, July 1, 1905.
Nos. 6651 to 6800, July 1, 1906.
Nos. 6801 to 6950, July 1, 1907.
Nos. 6951 to 7100, July 1, 1908.
Nos. 7101 to 7250, July 1, 1909.
Nos. 7251 to 7400, July 1, 1910.
Nos. 7401 to 7550, July 1, 1911.
Nos. 7551 to 7700, July 1, 1912.
Nos. 7701 to 7850, July 1, 1913.
Nos. 7851 to 8000, July 1, 1914.

The same being the entire issue of three million (\$3,000,000) dollars of District bonds, (third issue) issued under ordinance of August 1, 1894, and being completed and ready for delivery

(Signed) MELVILLE E. STONE,

*Treasurer of the Sanitary District of Chicago.*

By W. G. STANFORD,

*Assistant Treasurer."*

(\$3,000,000 in bonds.)

TABULATION OF BIDS ON SECTION 15 OF  
MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer, showing in detail, as presented at the last meeting, the bids for excavating Section 15 of the Main Channel, with extensions and a tabulation of the same; and the report was read.

Mr. Eckhart, seconded by Mr. Cooley, moved that the report, with enclosed tables, be ordered printed and placed on file, the subject matter of the bids having already been referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT, WITH TABLES:

"CHICAGO, August 29, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith the following document covering the bids re-

ceived for Section No. 15, on the 22d inst.:

First—A schedule of bidders' names and addresses in the order in which their bids were received, showing also checks deposited.

Second—A key to the schedule of bids, giving names of bidders and the prices bid for each class of material in the order in which the bids were received.

Third—A table of bids in the order of magnitude, lowest bid first.

Fourth—Tables showing the prices bid applied to the quantities of material in detail.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Enclosing four (4) tables.)

KEY TO SCHEDULE OF BIDS ON SECTION 15, RECEIVED AUGUST 22d, 1894.  
NAMES OF BIDDERS IN THE ORDER IN WHICH THEIR BIDS WERE RECEIVED:

Bid No.	NAME OF BIDDER.	PRICE BID.		
		Glacial Drift.	Solid Rock.	Retaini'g Wall.
1	E. D. Smith & Co., Romeoville, Ill.....	\$0.25	\$0.64	\$3.25
2	Christie, Lowe & Co., Chicago, Ill.....	.40	.65	3.10
3	C. E. Loss, Chicago, Ill.....	.17	.83	3.00
4	Lewis M. Loss, Chicago, Ill.....	.25	.69½	2.17
5	Heldmaier & Neu, Chicago, Ill.....	.26	.68 9-10	2.50
6	Mallory, Cushing & Co., Omaha, Neb.....	.34	.63	2.95
7	Campbell, Dennis & Co., Joliet, Ill.....	.20	.63	2.65
8	McDonald & Penfield, Fremont, Neb.....	.35	.67½	2.60
9	J. D. Moran Manfg & Constr'n Co., St. Paul, Minn	.20	.68	2.75
10	Dwyer, McNaughton & Co., Buffalo, N. Y.....	.35	.72½	3.25
11	Fruin-Bambrick Construction Co., St. Louis, Mo..	.25	.72 6-10	3.00
12	Mason, Hoge & Co., Frankfort, Ky.....	.27	.73	3.55
13	Hiero B. Herr & Co., Chicago, Ill.....	.25	.73½	2.75
14	Halvorson, Richards & Co., Minneapolis, Minn...	.25	.69	2.70
15	Andrew Onderdonk, Chicago, Ill.....	.30	.63	3.00
16	Rickert, King & Clement, New York, N. Y.....	.30	.66	3.20
17	Panama Construction Co., Chicago, Ill.....	.35	.67	3.00
18	Lauer, Hagaman & Co., Rochester, N. Y.....	.29½	.72½	3.71
19	F. C. Weir, Cincinnati, O.....	.35	.64	3.00
20	Winston Bros. & Stevens, Minneapolis, Minn.....	.22	.72	3.72
21	R. A. Malone & Sons, Philadelphia, Pa.....	.38	.74	2.60
22	J. A. McMurtrie & Co., Denver, Colo.....	.30	.71	2.25
23	Ezekiel Smith, Chicago, Ill.....	.30	.68	3.25
24	Wright, Meysenburg, Sinclair & Carry, Chicago...	.19	.59	2.35
25	Henkel & Sullivan, Cincinnati, O.....	.30	.74	4.25
26	Hayes Bros., Janesville, Wis.....	.26	.69	3.20
27	Powell, Mitchell & Co., Marquette, Mich.....	.25	.68	3.25
28	W. F. Callahan, Omaha, Neb.....	.19½	.69½	2.75
29	Moorman, Winfree & Co., Lynchburg, Va.....	.35	.70½	3.75
30	Dawson & Tilden, Chicago, Ill.....	.25	.85	3.25
31	Hill-O'Meara Construction Co., St. Louis Mo.....	.30	.69½	2.15
32	Grace & Hyde Co., Chicago, Ill.....	.18	.77	2.40
33	Prendergast & Murphy, Chicago, Ill.....	.19	.73	3.00
34	Angus & Gindele, Chicago, Ill.....	.29½	.74½	3.88
35	Probst Construction Co., Chicago, Ill.....	.60	.74	3.00



## SECTION 15.

*Bids of August 22, 1894.*

TABLE OF BIDS IN ORDER OF MAGNITUDE—LOWEST BID FIRST.

BID NO.	ORDER.	NAME OF BIDDER.	AMOUNT.
24	1	Wright, Meysenberg, Sinclair & Carry.....	\$ 477,717 00
7	2	Campbell, Dennis & Co.....	515,680 00
6	3	Mallory, Cushing & Co.....	532,572 00
15	4	Andrew Onderdonk.....	533,160 00
4	5	Lewis M. Loss.....	539,730 00
31	6	Hill-O'Meara Construction Co.....	540,695 00
19	7	F. C. Weir.....	541,315 00
8	8	McDonald & Penfield.....	547,680 00
5	9	Heldmaier & Neu.....	549,449 00
9	10	J. D. Moran Manufacturing and Construction Co.....	551,580 00
2	11	Christie, Lowe & Co.....	553,470 00
22	12	J. A. McMurtrie & Co.....	554,280 00
14	13	Halvorson, Richards & Co.....	557,785 00
16	14	Rickert, King & Clement.....	560,330 00
17	15	Panama Construction Co.....	560,485 00
23	16	W. F. Callahan.....	560,988 50
1	17	E. D. Smith & Co.....	573,345 00
27	18	Powell, Mitchell & Co.....	573,345 00
23	19	Ezekiel Smith.....	575,110 00
26	20	Hayes Bros.....	578,088 00
13	21	Hiero B. Herr & Co.....	588,490 00
21	22	R. A. Malone & Sons.....	590,274 00
11	23	Fruin-Bambrick Construction Co.....	592,739 00
33	24	Prendergast & Murphy.....	593,177 00
22	25	Grace & Hyde Co.....	594,384 00
10	26	Dwyer, McNaughton & Co.....	605,680 00
29	27	Moorman, Winfree & Co.....	612,850 00
35	28	Probst Construction Co.....	614,040 00
20	29	Winston Bros. & Stevens.....	616,646 00
12	30	Mason, Hoge & Co.....	618,001 00
34	31	Angus & Gindele.....	621,668 50
18	32	Lauer, Hagaman & Co.....	622,088 50
25	33	Henkel & Sullivan.....	653,450 00
3	34	C. E. Loss.....	656,371 00
30	35	Dawson & Tilden.....	681,975 00

REPORT ON ADVERTISEMENT FOR RE-  
LETTING OF SECTION E.

The Clerk presented a report from the Chief Engineer, with reference to the condition of work on Section E of the Main Channel, transmitting form of advertisement for the reletting of said section, and recommending that the Board proceed to advertise for bids for the completion of said work, as set forth in the report and accompanying advertisement; and the report and accompanying advertisement were read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report and accompanying advertisement be adopted, ordered printed, and placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to publish the said advertisement, as recommended in the report of the Chief Engineer.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report and accompanying advertisement adopted, ordered printed and placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to publish the said advertisement, as recommended in the report of the Chief Engineer.

The following is

THE REPORT, WITH ACCOMPANYING ADVERTISEMENT:

“CHICAGO, August 28, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:—

GENTLEMEN—I have this day visited

Section "E," Streeter & Kenefick, Contractors. I found one plow team and one scraper team at work, also the same 4 inch centrifugal pump heretofore reported. Two other small pumps of the same type were being put in order for work. The evidences afforded me do not indicate a resumption of work upon this section in good faith. Therefore, in view of the fact that operations upon this section of the Main Drainage Channel have been abandoned for about eight months last past, save for the feint made since the service upon the contractors of your order to resume work within ten days, and of the further fact that progress upon this section is now about three months in arrears, I am constrained to certify to you that this work is being "unnecessarily and unreasonably delayed" and these contractors are persistently violating the conditions and covenants of their contract relating to progress.

I would respectfully recommend that you proceed under the section of Clause "L" (Failure to complete) of the contract for said Section "E" which reads "The said party of the first part shall thereupon have the power either to complete the said work by contract or to employ such men, teams, etc." and advertise for bids for the completion of said work by contract.

I submit herewith a form of advertisement prepared by me to conform to the foregoing recommendation.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Accompanied by form of advertisement.)

—  
This following is

#### THE ADVERTISEMENT:

"SANITARY DISTRICT OF CHICAGO.

*To Contractors:*

Sealed proposals addressed to the Board of Trustees of the Sanitary District of Chicago, and indorsed:

"Proposal for the completion of the work on Contract Section E of the Main Drainage Channel" will be received by the Clerk of the said Sanitary District at Room H, Rialto Building, Chicago, Ill., until 12 M. (standard time) of Wednesday, the 12th day of September, 1894, and will be publicly opened by the said Board of Trustees at the regular meeting

held that day, or at a special meeting called for that purpose.

The work for which the said tenders are invited is the completion of that portion of the Main Drainage Channel of said Sanitary District known as Contract Section E, extending from station 510 to station 460, as awarded to Streeter & Kenefick January 31st, 1893, and as amended by supplemental agreement dated November 1st, 1893, under which the westerly end of said section is fixed as the westerly boundary line of the right of way of the Chicago & Calumet Terminal Railway Company, and the easterly end as the westerly boundary line of the Summit and Riverside highway, as now located and in use, and consists in all of about 75,000 cubic yards of rock and 1,294,000 cubic yards of glacial drift, being the estimated amount of work remaining to be done under said contract.

Each proposal to be accompanied by a certified check, or cash to the amount of \$5,000.

All certified checks to be drawn on some responsible bank doing business in the City of Chicago, and to be made payable to the order of the Clerk of the Sanitary District of Chicago. Said amount of \$5,000, to accompany each bid, will be held by the Sanitary District until all of said proposals have been canvassed and the contract for the completion of said Contract Section is awarded and signed, the return of said check or cash to the bidder to whom said work shall have been awarded, being conditioned upon his appearing within five days after notice of such award being given, with bondsmen, and executing a contract with the Sanitary District for the work so awarded, and giving a bond satisfactory to the Board of Trustees for the fulfillment of the same, in the amount of \$100,000.

All proposals must be made upon the blank forms furnished by the Sanitary District, and must give the price for each separate item of work.

The bids will be compared upon the basis of the Engineer's approximate estimate of quantities, which will be furnished with copies of the specifications.

No proposal will be considered unless the party making it shall furnish evidence satisfactory to the Board of Trustees of his experience in this class of work, that he can equip the section so as to make the required rate of progress within thirty (30) days from the date of the award, and that he can control suffi-



cient capital to enable him successfully to prosecute same to completion in case such contract shall be awarded him.

Bidders are required to state in their proposals their individual names and places of residence in full.

Specifications and plans may be seen at the office of the Chief Engineer, Rialto Building, Chicago, Ill.

The said Board of Trustees reserves the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,

By FRANK WENTER,

*President of its Board of Trustees.*

Attest:

THOS. F. JUDGE,

*Clerk.*

CHICAGO, August 29, 1894."

REPORT ON SUBSTITUTION OF CEMENT  
MASONRY FOR DRY RUBBLE WALLS  
ON SECTION 3.

The Clerk presented a joint report from the Chief Engineer and Attorney, with reference to and accompanied by an agreement, in duplicate, with Gilman & Co., Contractors on Section 3 of the Main Channel, providing for the substitution of cement masonry walls in place of dry rubble walls on said section, and recommending that the President and Clerk be authorized and directed to execute the said agreement, on behalf of the District, as provided in the report; and the report and accompanying agreement were read.

Mr. Cooley, seconded by Mr. Kelly, moved that the report and accompanying agreement be adopted, ordered printed and placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreement, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report and accompanying agreement adopted, ordered printed and placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreement, on behalf of the District, as provided in the report.

The following is

THE REPORT, WITH ACCOMPANYING  
AGREEMENT:

"CHICAGO, August 29, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—We transmit herewith a form of agreement in duplicate between the Sanitary District of Chicago and Gilman & Co. for the construction of retaining wall on Section three (3). This is pursuant to the direction of your Honorable Body of May 29, 1894, (page 1974 of Proceedings), and we recommend that the President and Clerk be authorized and directed to execute said agreement on the part of the District after same shall have been executed by Gilman & Co.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*

GEO. E. DAWSON,  
*Attorney."*

(Accompanied by agreement, in duplicate.)

—————  
(Agreement)

"This Agreement, Made this . . . . . day of . . . . ., A. D. 1894, by and between the Sanitary District of Chicago, party of the first part, and Charles C. Gilman and Edwin McNeill, doing business under the firm name and style of Gilman & Co., party of the second part, Witnesseth: that,

WHEREAS, Said parties on the first (1st) day of November, 1893, entered into a contract for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of first party's Main Drainage Channel known as Section three (3) together with the building of all collateral works which by the terms of said contract are included in same, which said contract among other things provides for the building of a large amount of dry rubble wall; and,

WHEREAS, First party, in view of the greater solidity and permanence of the structure, has deemed it desirable to substitute for dry rubble walls, walls laid in cement, so far as possible throughout its several contract sections;

*Now, Therefore, In consideration of the premises and of the reciprocal promises*



herein made the parties hereto agree as follows:

Second party agrees to construct from rock taken from said section a random wall laid in cement in lieu of the dry rubble wall specified in said contract, under the direction of the Chief Engineer of first party and in accordance with the following specifications.

The preparations of the foundations of said cement wall shall conform to the requirements stipulated in said contract for dry rubble walls; sand to be coarse, clean and sharp, free from loam and pebbles.

*Cement*—The best American hydraulic cement shall be used, brand and quality to be subject to approval by the Chief Engineer, who shall from time to time cause such tests to be made as may seem to him proper for determining the quality of the cement which is shipped for use in the work. The development of tensile strength shall be 100 pounds per square inch, after having set seven days. Second party shall keep on hand a supply of cement equal to the average consumption in the work during a period of ten days, and it shall be protected against rain or dampness, and so stored as to make the procurement of samples for testing easy. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

*Mortar*—The mixture shall be of sand and cement in equal parts. The sand and cement shall be thoroughly incorporated with each other before water is added. All mortar used shall be freshly mixed in clean boxes. No hard or partially set mortar shall be used. Water for mixing shall be clean. In laying the wall care shall be taken to secure bond by proper use of headers and stretchers, so far as the stone available for the work will admit, but the wall shall be so thoroughly slushed with cement mortar as to insure the filling of all interstices, and the development of a monolithic mass, so soon as the mortar shall have set. Stone used shall be sound and clean.

The wall shall be pointed with the specified mortar throughout before acceptance; all joints shall be raked out to a depth equal to three times their width to receive pointing. Work on cement masonry walls to be begun after the period of freezing in the spring and to be suspended before freezing begins in the fall.

The walls shall conform to the dimensions specified in said contract and the

faces of the walls shall conform to the batter there specified, the stones being generally bedded in planes approximately perpendicular to the faces.

Weeping holes shall be left in the walls every fifty feet at an elevation about two feet below datum. These holes shall not exceed thirty-six square inches of cross-section,

For said wall laid in cement, as herein specified, second party shall receive three and twenty-five one-hundredths (\$3.25) dollars per cubic yard, measured in the wall.

IN WITNESS WHEREOF, The Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part have hereunto set their hands and seals the day and year first above mentioned."

AWARDING AND COMPLETION OF CONTRACT ON SECTION 15 OF MAIN CHANNEL.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, recommending the awarding of the contract for the work on Section 15 of the Main Channel, to the lowest bidder of August 22, 1894, as provided in the report; transmitting, in duplicate, the amended contract for the work on said section, the same being executed by said lowest bidders, and recommending that the President and Clerk be authorized and directed to execute the said contract, on behalf of the District, as provided in the report, and further recommending the return to each and all of the bidders on said section of the checks deposited with their bids; and the report was read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report be adopted, with accompanying contract, ordered printed and placed on file, the recommendations made in the report concurred in, the President and Clerk authorized and directed to execute the said contract on behalf of the District, as provided in the report, and the Clerk authorized and directed to return to each and all of the bidders on Section 15, the checks deposited with their bids.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, with accompanying contract,

ordered printed and placed on file, the recommendations made in the report concurred in, the President and Clerk authorized and directed to execute the said contract on behalf of the District, as provided in the report, and the Clerk authorized and directed to return to each and all of the bidders on Section 15 the checks deposited with their bids.

The following is

THE REPORT, WITH ACCOMPANYING  
CONTRACT:

"CHICAGO, August 29, 1894.

*To the Honorable the Board of Trustees of  
the Sanitary District of Chicago:*

GENTLEMEN—Your Committee has considered the bids on Contract Section 15, referred at the last meeting, and reports as follows:

We recommend that the contract be awarded to the firm of Wright, Meysenburg, Sinclair & Carry, at their bid, to-wit: Glacial Drift, 19 cents per cubic yard; Solid Rock, 59 cents per cubic yard; Retaining Wall, \$2.35 per cubic yard; said firm being the lowest bidder.

The Committee had added a stipulation in reference to a ditch across Fitzpatrick's Island, which has been made necessary through the purchase of land, said stipulation being satisfactory to the contractor.

The Committee submits the contract, duly signed by second party, and we recommend that the President and Clerk be authorized and directed to execute the same on behalf of the District as soon as the bond shall have been completed to the satisfaction of the Committee on Finance.

We further recommend that the Clerk be authorized and directed to return to each and all of the bidders on said Section 15 the checks deposited by them with their bids.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.  
THOMAS KELLY,  
B. A. ECKHART,  
W. H. RUSSELL,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(Accompanied by contract, in duplicate.)

The following is the

# CONTRACT, ETC:

"THE SANITARY DISTRICT OF CHICAGO.

Contract and specifications for Section fifteen (15) of the Main Drainage Channel in the Valley of the Desplaines River, extending from Station 1480 to Station 1520.

*This Agreement*, Made and entered into this twenty-seventh day of August A. D., 1894, by and between the Sanitary District of Chicago, of the first part, and Augustine W. Wright, Otto W. Mysenburg, Donald Sinclair and Edward F. Carry, doing business under the firm name and style of Wright, Meysenburg, Sinclair & Carry, of the second part.

A—

WITNESSETH: That the party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part, by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all materials, tools, explosives, labor, and all appliances and appurtenances called for by the agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete excavation and entire removal of earth, rock, glacial drift and other material, from that portion of the said Main Drainage Channel, known and distinguished by the specifications herein contained, and the plans accompanying them, as Section fifteen (15), together with the building of all collateral works, which, by the terms of this contract, are included in the same. Said Section to be entirely completed and prepared ready for inspection as provided for in Section 27 of an act of the Legislature of the State of Illinois, entitled "An Act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois rivers," approved May 29, 1889, in force July 1, 1889.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of



Chicago, and such assistants, superintendents and inspectors as the Chief Engineer may appoint, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his assistants and inspectors shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit, and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Whenever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees, or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein, it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties intrusted to them.

Whenever the word "Contractor" is used herein, it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

The maps, plans and profiles hereto attached are made part of this contract, but are subject to such modifications as are herein provided for.

#### SPECIFICATIONS.

1—*Location*—The work covered by and included in these specifications is the excavation of that part of the Main Drainage Channel and the building of certain collateral works for the Sanitary District of Chicago, located between a point in the northwest quarter of Section 14, Township 36 North, Range 10 East of the Third Principal Meridian, in Will County, Illinois, 1,370 feet (more or less) south of the north line of said Section 14, and a point in the northeast corner of Section 22, Township 36 North, Range 10 East of the Third Principal Meridian, in Will County, Illinois, as the same has been located by the Engineer

of this District, and adopted by the action of the Board of Trustees of said District, and as shown upon the accompanying plans, marked 1, 2, 3 and 4.

2—*Section*—This portion of the work is designated and known as Contract Section No. 15, and extends from the Station on center line, designated as 1,480, to the Station designated as 1,520, a distance of 4,000 feet. In addition to the Main Channel herein described, certain subsidiary work, such as levees, roadways and foundations, hereinafter more particularly described, must be built.

3—*Grade*—The grade line at the bottom of said Main Channel at the Station designated 1,480 shall be 29.9 feet below the datum established by the Illinois and Michigan Canal Trustees in 1847, and shall slope thence uniformly at the rate of 0.05 of a foot vertical to 1,000 feet horizontal to Station 1,520, where the elevation shall be 30.1 feet below datum.

The Sanitary District reserves the right to change said grade by raising or lowering it, or by increasing or decreasing the slope, thereby increasing or decreasing the amount of excavation; provided that said change shall in nowise affect the terms of this contract as to price, or entitle said contractors to any compensation additional to the rate fixed by this contract, or render the Sanitary District liable for any damages whatsoever, direct or indirect. Provided further, that the said change shall in no place affect the grade by an amount exceeding four feet; and that the Sanitary District shall notify the said contractor of any such change before any portion of said channel shall have been finished in conformity to the grade as hereinbefore specified.

4—*Dimensions of Cross Sections*—The bottom of the finished channel shall have the dimensions shown in plans Nos. 3 and 4. Where the channel is in rock the sides of said channel shall be kept vertical, except as to necessary offsets occasioned by the use of a channeling machine.

The sides of the rock channel are to be worked out with a channeling machine from top to bottom, the channels being cut ahead of the blasting. In doing this the bottom of each cut of the machine is to be made to a uniform level above the grade, and each succeeding one offset six inches



from the one just preceding. The contractor will be allowed to work the rock in one or more stopes, at his option, so far as concerns the main portion of the width of the channel, but in case he elects to work the face in stopes having a greater height than the reach of the channeling machine in depth, then the blast holes are to be so disposed as to effectually prevent any blast from breaking or shattering the rock beyond the sides of the prism of the channel, which are to be left as smooth and solid as can be obtained with a skillful and proper use of a channeling machine.

In determining the width of the channel at the top of the rock, the necessary offsets made by the operation of the machine are to be allowed for. Provided, that where the depth of the rock does not exceed twelve feet, there shall be but one reach or cut of the channeling machine made, and that when its depth is over twelve feet and not greater than twenty-four feet, there shall be but two cuts made, and that nowhere is there to be more than three cuts made for the whole depth of the rock excavation.

Where the channel is partly in earth and partly in rock, the earth shall be so excavated as to leave a berm on top of the rock equal to three-eighths ( $\frac{3}{8}$ ) of the depth of the rock surface below a level five feet above datum; provided, that the berm shall be in no event less than five feet; and, provided further, that where the section is entirely in earth, the additional width at bottom shall conform to the above rule. In all cases, the earth shall be taken out with the least slope which it is found can be safely maintained until the retaining walls are built, and as may be directed by the Chief Engineer from time to time.

5—*Retaining Walls*—The sides of the channel are to be walled with masonry as soon as practicable after the channel is opened, provided suitable stone can be found in the excavation on said section which will conform to the specifications, as follows:

If the bottom of the channel is in earth or glacial drift, the retaining walls shall be founded upon a footing made in a trench dug not less than one foot below grade, and as much deeper as may be directed by the Chief Engineer, said footing course to project twelve inches beyond the face of the

wall. If the bottom of the channel is in rock, the retaining walls are to be founded upon the surface of the rock. Before beginning the construction of the wall, the surface of the rock is to be cleared of earth and foreign substances, and all loose and soft rock is to be removed for the full width of its base, that the wall may be founded on a clean, solid stratum. If this stratum of natural rock inclines towards the Main Channel, with such an inclination and in such manner as, in the opinion of the Chief Engineer, to render the footing of the wall liable to slip on the same, then the contractor shall excavate the top surface of the rock parallel with and beneath the proposed wall in accordance with the directions of the Chief Engineer, so as to effectively remove all liability of slipping. The walls in all cases are to be built to a height of five feet above datum. The dimensions of the walls shall be as shown in plans Nos. 3 and 4, the height of wall and thickness of base being determined by the elevation of suitable foundations, provided that when any part of the wall is constructed below the general natural surface of the rock, that part of the wall shall have a uniform thickness.

The tops and faces of the walls on different sides of the channel are to be distant from the center of the channel two (2) feet further than the lines bounding the bottom of it.

The retaining walls are to be built of stone taken out of the excavation, those of the largest size and most regular rectangular shape being selected for the faces and for main binding stones; the face of each wall to be laid true to line, the stones being scabbled and carefully placed in a firm position on their natural quarry beds without the use of spawls or small stones in their joints. The walls are to be laid in courses not less than twelve inches nor more than thirty inches in thickness, no stone being used in the face less than twelve inches in thickness, and whose depth and width is less than twice its thickness, each course being carried through the whole thickness of the wall before another course is begun. In laying each course the larger stones are to be carefully placed in position, covering the face of the wall in such a manner as to break joints with the larger stones of the preceding course, thereby thoroughly binding the wall into a solid

mass. Only selected stones are to be used for the top course.

The face of the wall shall, as indicated in plan No. 3, in general, be of ranged rubble and the backing of random rubble wall, laid in cement mortar. Sand used to be course, clean, sharp, free from loam and pebbles.

*Cement*—The best American hydraulic cement shall be used, brand and quality to be subject to approval by the Chief Engineer, who shall from time to time cause such tests to be made as may seem to him proper for determining the quality of the cement which is shipped for use in the work. The development of tensile strength shall be 100 pounds per square inch, after having set seven days. The contractor shall keep on hand a supply of cement equal to the average consumption in the work during a period of ten days, and it shall be protected against rain or dampness, and so stored as to make the procurement of samples for testing easy. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

*Mortar*—The mixture shall be of sand and cement in equal parts. The sand and cement shall be thoroughly incorporated with each other before water is added. All mortar used shall be freshly mixed in clean boxes. No hard or partially set mortar shall be used. Water for mixing shall be clean. In laying the wall, care shall be taken to secure bond by proper use of headers and stretchers, so far as the stone available for the work will admit, but the wall shall be so thoroughly slushed with cement mortar as to insure the filling of all interstices, and the development of a monolithic mass, so soon as the mortar shall have set. Stone used shall be sound and clean.

The wall shall be pointed with a specified mortar throughout before acceptance; all joints shall be raked out to a depth equal to three times their width to receive pointing. Work on cement masonry walls to be begun after the period of freezing in the spring, and be suspended before freezing begins in the fall.

6—*Back Filling*—The space back of the walls at the east side of the channel shall be filled with material excavated from the Main Channel in manner and form as follows:

All the space between the walls and the embankment shall be filled. The surface of the filling at the edge of the walls shall be at an elevation of five (5) feet above datum, and shall slope away from the wall one foot vertically for each ten (10) feet for thirty (30) feet of horizontal distance, where the elevation shall be eight (8) feet above datum; thence the top of the filling shall be level until the top of the embankment is reached.

The space back of the walls at the south end of the section, and between Station 1,480 and Station 1,510 on the west shall be filled with material excavated from the Main Channel in manner and form as follows:

The surface of the filling at the edge of the walls shall be at an elevation of five (5) feet above datum, and shall slope away from the walls one foot vertically for each ten (10) feet for thirty (30) feet of horizontal distance where the elevation shall be eight (8) feet above datum; thence the top of the filling shall be level until its total width is forty feet at its top; thence the slope of the filling at the parts most remote from the channel shall be not steeper than one and one-half ( $1\frac{1}{2}$ ) horizontal to one (1) vertical.

The form of the back filling at the southeast corner of the excavation shall be the result of the intersection of the above described filling carried southward and eastward past the corner.

7—*Clearing and Grubbing*—The contractor will be required to remove all trees, stumps, buildings, fences or other incumbrances within 150 feet of the center line of the channel, or that may be in the way of any collateral or subsidiary work herein specified. All such material of value, except such as the Sanitary District may elect to retain, shall be the property of the contractor, and all worthless material shall be disposed of as directed by the Chief Engineer. The cost of this work shall be included in the prices for excavation as hereinafter stated.

8—*Levee*—The said contractor shall build at his own cost and expense all or any levees which may be necessary to protect the work, provided for in this contract, during the progress of the same. And should flooding occur either before or after the building of any such levees, any and



all expenses and damages to which he may be put shall be borne by the said contractor.

The contractor shall construct a levee, joining the southern extremities of the east and west embankments, shown on plans Nos. 1 and 4. It shall be constructed of glacial drift taken from the Main Channel excavation. It shall be fifteen (15) feet wide on top, and shall have side slopes not steeper than one and one-half ( $1\frac{1}{2}$ ) horizontal to one (1) vertical. Its location shall be as shown on plans Nos. 1 and 4. It shall be constructed in such manner as to be water-tight when completed. The surface of the ground on which it is to rest shall be plowed and thoroughly grubbed, and all vegetable material removed. The elevation of the top of this levee shall be six (6) feet below datum. Where said embankment crosses the island known as the Fitzpatrick Island, in the southeast quarter of Section 15-36-10, East of the Third Principal Meridian, the contractor shall connect by a new channel the parts of the east branch of the Desplaines River which are cut off by said embankment. Said new channel shall be located along the west line of said embankment under the direction of the Engineer, shall be of such width as he may direct, not less than fifteen feet nor more than forty-five feet, and shall be constructed by removing trees and stumps and excavating the glacial drift down to the surface of the rock. The contractor may dispose of the material so excavated at the base of said embankment or may use the same for the cross-levee above provided for. The material excavated from said new channel shall be included in the glacial drift herein provided for, and paid for at the rate specified for glacial drift.

9—*Disposition of Material*—The contractor, except as otherwise specified, is to dispose of all material to be excavated under the terms of this contract at his own expense, and in the most convenient manner, in waste banks on the right of way; provided that the foot of the outer slope shall not approach the margin of the right of way closer than ten feet.

No material shall be deposited on that part of the right of way to the west of the Main Channel between Station 1510 and Station 1520, nor on the east side of the embankment east of the Main Channel, as shown in plan No. 4. Nor shall any por-

tion of the material in waste banks be so deposited as to reach an elevation higher than eight (8) feet below datum.

10—*Drainage*—The contractor is to provide all pumping machinery and operate the same at his own cost and expense during the time of excavation, and until the whole work is fully completed and inspected, as provided for in other sections of this contract. The contractor shall dispose of any water pumped in such manner as not to interfere with the operation of other contractors for the Sanitary District.

11—*Classification of Material*—All material excavated under the provisions of this contract is to be classified under one or the other of two heads, viz: "Glacial drift" and "solid rock."

Glacial drift shall comprise the top soil, earth, muck, sand, gravel, clay, hard-pan, boulders, fragmentary rock displaced from its original bed, and any other material that overlies the bed rock.

Solid rock shall comprise all rock found in its original bed, even though it may be so loosened from the adjacent underlying rock that it can be removed without blasting.

12—*Quantity of Material*—A profile of the average surface of the ground approximately on the line of the Main Channel, and also of the supposed surface of the bed rock is shown on plan No. 2. These profiles, though approximately correct, do not purport to be absolutely so, and are only presented as approximations, as is also the schedule of quantities attached as an appendix hereto. The contractor is to take all risk as to variations of the total quantity of material excavated, as well as the relative amount of glacial drift and solid rock.

13—*Highways*—All public roads crossing or lying adjacent to the Main Channel shall be kept open and unobstructed during the progress of the work. No interference with any public road will be allowed until a temporary or permanent road has been provided, under the direction of the Chief Engineer, which will permit safe and free travel. No interference will be allowed with any railway or canal until such time as other and proper provision for the operation of such railway or canal has been made.

14—*Bridges and Structures*—The Sani



tary District reserves the right to enter upon the said Main Channel and right of way at any time or place, after or before the excavation has been completed, for the purpose of erecting, or preparing for the erection, of any bridge or bridges, or the building of any road or other structure, providing that such work of erection or preparation therefor shall not interfere with the contractor in carrying out the provisions of this contract. To this end the contractor shall make, or allow the Sanitary District to make, at the expense of said Sanitary District, such changes in railroad tracks, buildings or structures, as will not interfere with the operations of said contractor, and that, in the opinion of the Chief Engineer, are necessary to the accomplishment of the purpose in view.

Said contractor, if so ordered by the Chief Engineer, is to make all necessary excavations in or adjacent to the Main Channel, and do all necessary grading, as directed by the Chief Engineer, that may be needed for the building of any kind of structure which the Sanitary District may wish to erect, and he is to be paid therefor at the rates hereinafter given for the Main Channel; provided, that in case a bridge is to be built having a center and a protection pier, the said contractor is to widen out the sides of the Main Channel, as may be directed by the Chief Engineer, and is to leave a mass of rock in the middle of the Channel to serve as a protection pier, of the dimensions and shape directed by the Chief Engineer, the sides of said mass being taken out with a channeling machine, as hereinbefore specified for the Main Channel.

**15—Regulating Works**—The Sanitary District will erect certain regulating works at the west side of the Main Channel, between Station 1510 and Station 1520.

That this work may be undertaken in time, the contractor herein shall complete the excavation of the west one hundred feet of the Main Channel between said stations on or before May 1, 1895, and shall thereafter so conduct his work as not unnecessarily to interfere with the construction of said regulating works. He shall also, at said date, vacate and cease to occupy for any purpose that part of the right of way of said Sanitary District between said stations and west of the west edge of the Main Channel. It is under-

stood that no part of the construction of said regulating works falls within the terms of this contract, except such excavation and grading as may, at the option of said Sanitary District, be ordered by its Chief Engineer under the preceding paragraph hereof.

**16—Explosives**—The contractor is to furnish all explosive compounds for blasting the material provided to be excavated under this contract; and, whereas, the storing, handling and use of so large an amount of explosive material requires the utmost care and discrimination, it is therefore understood and agreed that the said contractor shall arrange for the storage of all explosive materials at a distance not less than 600 feet from the work, or from any other magazine, or from any dwelling occupied for a habitation, and that no more than 5,000 pounds shall be kept in one place. It is further understood and agreed, that said explosive material shall in no case be brought onto the work except when needed for the purpose of charging the blast holes, and then only in such quantity as is needed for the particular work in hand, and that none but skilled and careful men shall be employed in the handling or use of said explosives, and that no liquid explosive shall be used.

It is further understood and agreed, that the ground surrounding all magazines shall be kept free from vegetable or combustible material for a radius of one hundred feet, and that their walls shall be made bullet proof to a height of one foot above the contained explosives, and that in no case shall they be made of brick or stone. It is also understood and agreed, that such signals of danger as may be directed by the Chief Engineer shall be given or displayed before the firing of any blast, and that the said contractor shall conform his acts to and obey all rules and regulations relative to the handling of explosives and the firing of blasts, for the protection of life or property, which may be made by the Chief Engineer from time to time.

**17—Measurement**—Measurement for all excavated material will be made in excavation by the cubic yard of twenty-seven cubic feet, based upon the survey and cross-section notes of the Chief Engineer.

All "glacial drift" excavated under the direction of the Chief Engineer, whether in

or out of the main channel, will be included in the measured quantities.

"Solid rock" excavated within the limits of the dimensions and grade of the main channel, or of any river diversion channel, or for the placing of any bridge or other structure, as hereinbefore specified, or that shall be taken out by direction of the Chief Engineer, shall be included in the measured quantities; provided that nothing will be included for rock that comes out below grade in the excavation of any channel.

"Retaining walls" will be measured by their net cubical contents, as specified.

The prices given herewith are to include all work herein specified as clearing and grubbing, levees for protection, pumping, roadways for working, back filling of retaining walls, and generally all work and material found necessary in prosecuting this contract.

18—*Extra Work*—All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Chief Engineer at the time such labor or material are furnished or such damages occur, and they must also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which price is fixed by this contract.

Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Chief Engineer shall fix such prices for the work as he shall consider just and equitable, and the contractor shall abide by such prices; provided he enters upon such work with full knowledge of the prices so fixed by the Chief Engineer; but if the contractor declines executing said work at the prices fixed by the Chief Engineer, then the Sanitary District may enter into contract with any person or persons for its execution, the same as if this contract had never existed; and if extra work, or work not provided for in this contract, is performed by the contractor before prices have been fixed for such work, then the Chief Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept of said prices in full satisfaction of all demands against the

Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with 10 per cent. added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

19—*Responsibility of Contractor*—All the work provided for in this contract is to be done in a skillful and workmanlike manner, under the direction and supervision of the Chief Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Chief Engineer to properly give lines and grades and to measure the work from time to time.

All work will be subject to inspection by the said Chief Engineer and his said agents, and if not in accordance with the requirements of this contract it is to be made good by the contractor.

The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to assign or sub-let all or any part of it, it being distinctly understood and agreed that the assigning or sub-letting of the work covered by this contract, or any part thereof, shall work a forfeiture of the contract at the option of the Sanitary District.

The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case there is a substantial failure on the part of the contractor to comply with the provisions of this contract as to progress and character of the work, or to comply with the provisions of this contract in regard to giving bonds for



the performance hereof, the party of the first part may declare this contract forfeited; and in such case the reserve of 12½ per cent. herein provided for, and any other retained percentage, shall be forever retained by the said party of the first part as liquidated damages for such failure of second party to so prosecute or complete said work.

*20—Changes in Plan*—In addition to the reservations hereinbefore made, the Sanitary District reserves the right to make alterations in the line, grade, plan, form, dimensions, or material of the work herein provided for, either before or after the beginning of construction; provided, that if the alterations are made, the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of the work to be done they shall not constitute a claim for damages, or for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract. Notice of any change of plan must be given the contractor in writing. And it is expressly agreed that no alterations, or additions, or extra work are to be paid for unless directed in writing.

*21—Tools*—The contractor is to furnish all the tools of every kind and description, including pumps, cars and tracks necessary to the full and complete carrying out of this contract, and on completion of the work is to remove all tools, buildings and material of all kinds from the right of way of the Sanitary District.

*22—Precautions*—Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to avoid contingencies which are liable to delay the completion of the work, or which in the judgment of the Chief Engineer shall be necessary, shall be taken by the contractor.

*23—Workmen*—The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Chief Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

And, further, the contractor shall pro-

vide and employ, upon the order of the Chief Engineer, men, teams, tools and machinery suited to the work, in such number and quantity as may, in the judgment of the said Chief Engineer, be necessary for carrying on and completing the works in conformity with the time limit stated by this contract. And, further, it is understood and agreed that the Chief Engineer may order the prosecution of any particular portion of this work which in his judgment needs special expedition, and it shall be so done as directed by him.

*E—*

*Damages*—If any damage shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, for which the contractor herein is legally liable, the Engineer shall have the right to estimate the amount of said damage and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damage shall be deducted from the money due said contractor under this contract.

Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or his employe that is in the nature of a legal liability; and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any injuries or damages received or sustained by any person or persons by or from said contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any failure or negligence in guarding or protecting the same; or by or on account of any act or omission of said contractor, his agents or employes; and the said contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suits or claims for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.



F—

*Sanitary District Law*—The said contractor hereby agrees to carry on all the work provided for in this contract, in strict conformity to the requirements of the law under which the Sanitary District of Chicago is organized, entitled "An act to create Sanitary Districts and to remove obstructions from the Desplaines and Illinois Rivers;" approved May 29, 1889, in force July 1, 1889, which provides in Section 11, among other things, that "No person shall be employed on said work unless he be a citizen of the United States or has in good faith declared his intentions to become such citizen. In all cases where an alien after making his declaration of intention to become a citizen of the United States shall, for the space of three months after he could lawfully do so, fail to take out his final papers and complete his citizenship, such failure shall be *prima facie* evidence that his declaration of intention was not made in good faith; and that eight hours shall constitute a day's work."

G—

*Time*—The contractor agrees to begin work within fifteen days after the execution of this contract. He agrees to carry it on at such points and in such order of procedure as the Chief Engineer may direct.

All the work provided to be done under this contract shall be completed and ready for inspection on or before the 30th day of June, of the year 1896. All levee work to be completed on or before November 1, 1894.

The work done each month shall not be less than such proportion of the whole work as one month bears to the total number of months agreed upon for the completion of said work, provided that the time from the date of this contract to November 1, 1894, shall be considered as one month, and the last two months before date of completion as one month, and provided further that this rate shall not be required if at any time the aggregate work done exceeds the total proportion due to the time that has passed since October 1, 1894; and always provided that the Sanitary District shall not be obligated to make payment in excess of the above monthly proportion; and said October 1, 1894, is hereby fixed as the date from which all progress estimates shall be made.

It is also agreed that the monthly progress herein specified shall be estimated upon the basis of cost, that is to say, such an amount of work shall be done each month as shall earn for the contractor a sum equal to the quotient of the aggregate approximate cost of the different kinds of work herein provided for, at the prices herein specified, divided by twenty-one, the number of months within which all said work is to be executed.

H—

*Price*—In consideration of the said work being carried on and completed in time and manner as specified, the said party of the first part agrees to pay to the said party of the second part, and the said party of the second part agrees to receive and accept as full compensation therefor, including the furnishing by him of all necessary materials, tools, labor, machinery and appliances.

For each cubic yard of rock excavated the sum of no and  $\frac{50}{100}$  dollars (\$0. $\frac{50}{100}$ ).

For each cubic yard of glacial drift excavation, no and  $\frac{10}{100}$  dollars (\$0. $\frac{10}{100}$ ).

For each cubic yard of retaining wall laid in cement mortar, two and  $\frac{85}{100}$  dollars (\$2. $\frac{85}{100}$ ).

I—

*Time and Manner of Payment*—It is agreed by the party of the first part that on or before the 10th and 25th day of each month, during the progress of the work, and subject to the provisions hereinbefore specified under the head of "Time," payment will be made to the said party of the second part to the amount of 87½ per cent. of the contract price of the approximate amount of work done during the previous half month, upon written certificates from the Chief Engineer that such approximate amount of work has been done during that period, 12½ per cent. being reserved until the completion and acceptance of the whole work; provided the work has been done in all particulars in conformity with this contract and to the satisfaction of the Chief Engineer.

J—

*Grading of Prices*—It is hereby agreed by the said party of the second part that if his manner of conducting the work is such that at the time of making any progress estimate a markedly greater proportion of the top material has been excavated than

of the bottom material, then the Chief Engineer shall, in making such estimates, ascertain what amount has been excavated up to that time of any material lies above, and what below, a horizontal plane dividing the mass of said class of material into equal parts; and if the upper portion exceeds the lower, then the total amount of material found to have been excavated previous to the time of making the estimate shall be reduced by 10 per cent. of said excess, and estimates or certificates issued on the remainder, with the percentage deductions provided for in the preceding Section I.

K—

*Certificate*—On all the work provided for in this contract being completed in accordance with the contract, and to the full satisfaction of the Chief Engineer, and on its being inspected by him and a certificate made by him setting forth the amount of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said second party by the said certificate of the said Chief Engineer, including the 12½ per cent. reserve.

L—

*Failure to Complete*—It is further agreed by the said party of the second part that if the work to be done under this contract shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Chief Engineer shall be of the opinion, and shall so certify in writing to the said party of the first part, that said work, or any part thereof, is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not executing said contract in good faith, the said party of the first part shall have the power to notify said contractor to discontinue all work, or any part thereof, as may be designated by said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as

the said Chief Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing said Chief Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work shall be charged to the said contractor, and any moneys that may then be due, or may at any time thereafter become due to said contractor under and by virtue of this contract, shall be applied by first party to the payment of such cost, so far as same shall suffice therefor, and the remainder of the cost of so completing said work, if any, shall be paid by said contractor to first party on demand.

M—

*Payment of Laborers*—Said contractor shall pay the laborers employed by him promptly at regular intervals, and shall not pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States. And if at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed, and in manner aforesaid, or for material furnished upon said work, then the party of the first part shall have power to pay for such labor or such material out of any money or moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor.

In any such case the party of the first part is hereby authorized and empowered by the said party of the second part to ascertain the amount or amounts due or owing from said contractor to any laborer or laborers, or to any person for material furnished, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said contractor, and the amount or amounts so found by the said party of the first part to be due and owing to said laborer or laborers, or to said materialmen, shall be final and conclusive as against said contractor, and may thereafter be paid over by the said first party to such laborer, laborers or materialmen.

N—

*Contractor's Bond*—The contractor shall furnish a bond in the sum of one hundred thousand (\$100,000) dollars, with good and



sufficient sureties, the same to be satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract, and should the sureties on said bond at any time fail financially, or be, in the opinion of said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten days' notice thereof in writing, require said contractor to furnish a new or additional bond in the place of the bond so having become insufficient or worthless.

O—

*Final Payment*—The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate, pay and it hereby binds itself to pay the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

P—

*Health Regulations*—Said party of the second part agrees to introduce among . . . . employees, such regulations in regard to cleanliness, the care of dwellings and premises and the disposition of garbage and offal, as shall conduce to their health and tend to prevent the inception and spread of contagious and infectious diseases among them, to make provision for an ample supply of suitable drinking water, and to take such means as shall effectually prevent the creation of a nuisance on any part of the right of way of said Sanitary District or adjacent thereto, and as may be directed

by the Sanitary Inspector of said Sanitary District.

"IN WITNESS WHEREOF, on the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President, and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part have hereunto set their hands and seals."

REPORT ON ADVERTISEMENTS, CONTRACTS, SPECIFICATIONS AND PROPOSALS FOR HIGHWAY BRIDGES AT ROMEO, LEMONT AND WILLOW SPRINGS, AND BRIDGE MASONRY FOR SAME.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, transmitting forms of advertisement, contracts, specifications and proposals, for the erection of swing or draw bridges over the Main Channel at Romeo, Lemont and Willow Springs, and for the bridge masonry for said bridges, said report being made in response to an order passed at the meeting held August 15, 1894, (Page 2107 of the Proceedings,) and recommending that the same be advertised, as provided in report; and the report was read.

Mr. Cooley, seconded by Mr. Kelly, moved that the report and accompanying form of advertisements, contracts, specifications and proposals be adopted, ordered printed and placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to publish the said advertisements, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report and accompanying forms of advertisement, contracts, specifications, and proposals adopted, ordered printed and placed on file, the recommendations made in the report concurred in, and the Clerk authorized and directed to publish the said advertisements as provided in the report.

The following is

THE REPORT, WITH ACCOMPANYING SPECIFICATIONS, ETC.:

"CHICAGO, August 29, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—By order of August 15,



1894, (page 2107 of the Proceedings), this Committee was instructed to consider and report upon certain specifications, in course of preparation by the Chief Engineer, for draw bridges at the highway crossings over the Main Channel at Romeo, Lemont and Willow Springs.

This portion of the Channel is in the rock cut, having a uniform width of 162 feet at the top, and the three bridges above mentioned are all that are required for highway purposes. It is proposed to have a clear opening of the full width, and without central pier or obstruction in the channel.

The specifications for the superstructure contemplate that bids shall be based on bidders' designs for bridges of the swing type or of the folding or lift type, and that the District shall be privileged to select from the designs on paying a premium of \$750. The specifications for the masonry and approaches are separate and are subject to modification, according to the type that may be adopted.

Your Committee has considered these specifications, and submit them herewith, with the recommendation that the same be adopted and be advertised in the usual manner, the bids to be returned on October 31, 1894.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*

THOMAS KELLY,

B. A. ECKHART,

JOHN J. ALTPETER,

W. H. RUSSELL,

*Joint Committee on Engineering and Finance."*

(Accompanied by advertisements, specifications, etc.)

The following is the form of

# **ADVERTISEMENTS, CONTRACT, ETC.**

"SANITARY DISTRICT OF CHICAGO.

## *To Contractors:*

"Proposals for supplying and erecting certain swing or draw bridges and fixed spans along the line of the Main Drainage Channel" will be received by the Clerk of the said Sanitary District at Room H, Rialto Building, Chicago, Illinois, until 12 M. (standard time) of Wednesday, the 31st day of October, A. D. 1894, and will be publicly opened by said Board of Trustees

at the regular meeting held that day, or at a special meeting held for that purpose.

The bridges for which the said tenders are invited are three in number and their sites are as follows: Romeo, near the west end of Contract Section No. 12 of the Main Drainage Channel; Lemont, near the center of Contract Section No. 8 of the said Channel, and Willow Springs, near the east end of Contract Section No. 1 of the Main Drainage Channel.

Each of said bridges will be treated as a separate contract in canvassing proposals and making awards. As the awards will be of each bridge separately, each bidder must make prices for each bridge separately and distinctly from every other.

Each proposal for each bridge shall be accompanied by a strain sheet, etc., as provided in the specifications, and by a certified check or cash to the amount of \$1,000. All checks to be drawn on some responsible bank doing business in the City of Chicago, and made payable to the Clerk of the Sanitary District of Chicago. Said amount of \$1,000 to accompany each bid for each of the respective bridges will be held by the Sanitary District until all of said proposals have been canvassed and contracts awarded and signed. The return of said check or cash to the bidder to whom said work shall have been awarded being conditioned upon his appearing within ten days after notice of such award being given, with bondsmen, and executing a contract with the Sanitary District for said work so awarded and giving a bond satisfactory to the Board of Trustees for the fulfillment of the same in the amount of \$10,000 for each bridge which shall have been awarded to him.

All proposals must be made upon blank forms furnished by the Sanitary District and must give the price for each separate item of the work as provided in said forms. The bids will be compared in accordance with the terms of the specifications.

No proposal will be considered unless the party making it shall furnish evidence satisfactory to the Board of Trustees of his ability to do the work and that he has the necessary pecuniary resources to fulfill the conditions of the contract, provided such contract shall be awarded to him.

Bidders are required to state in their proposals their individual names and places of residence in full.

Specifications and plats may be seen at the office of the Chief Engineer, Rialto Building, Chicago, Ill.

The Board of Trustees reserves the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,

By FRANK WENTER,

*President of its Board of Trustees,*

Attest:

THOS. F. JUDGE,

*Clerk.*

CHICAGO, August 29, 1894."

"THE SANITARY DISTRICT OF CHICAGO.  
Contract and specifications for Bridges  
Nos. 1, 2 and 3 on Main Drainage Channel.

*This Agreement, Made and entered into*  
this ..... day of ..... A. D.,  
1894, by and between the Sanitary District  
of Chicago, of the first part, and .....  
.....  
of .....  
in .....  
of the second part.

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part, by the said party of the first part and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material, tools, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to complete the erection of the superstructure of iron or steel, or of iron and steel in combination, with the necessary wood work for floor joists and flooring for the highway bridge known and distinguished as bridge No. .... at.....

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the

Chief Engineer of the Sanitary District of Chicago, and such assistants, superintendents and inspectors as the Chief Engineer may appoint, by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined and on whose inspection all materials and work shall be accepted or condemned. The said Chief Engineer and his assistants and inspectors shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit, and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Whenever the words "Sanitary District" are used in this contract, they shall be understood to mean the Sanitary District of Chicago as represented by the Board of Trustees or their duly authorized and accredited agents.

Whenever the word "Engineer" is used herein, it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties entrusted to them.

Whenever the word "Contractor" is used herein, it shall be understood to mean the person or persons, or co partnership or corporation entering into the contract as party of the second part.

The maps, plans and profiles hereto attached are made a part of this contract, but are subject to such modifications as are herein provided for.

#### SPECIFICATIONS.

*Swing or Draw Bridges*—The bridges covered by these specifications are of the swing type with unequal arms properly counter-balanced. But any design for a draw bridge which fulfills all of the mechanical and physical requirements for such a bridge and meets the requirements for structural strength, quality of material and workmanship set forth in these specifications will be fairly considered and will be accepted or rejected on its merits, as compared with other designs for efficiency,



cost and economy of maintenance and operation.

Each bidder must submit with his proposal a strain sheet and set of plans based upon the specifications contained herein, and such detailed drawings as will clearly show the dimensions of all parts, modes of construction and sectional areas; also a schedule of weights of the wrought iron, steel and cast iron entering into the structure, and the pig iron used for counter weights. The weights of completed structure will not be allowed to vary more than five per cent. from the estimated weights named in the proposal, and payments therefor will be upon the basis of actual weights; provided, however, that no material in excess of the five per cent. limit shall be paid for.

The Chief Engineer shall compare the several designs submitted, and shall select therefrom the design which seems to him the most perfect and best adapted to the work, and the bidder whose price per pound, applied to the accepted design, figures out the lowest shall accept this design and build in accordance with it, provided he complies in all other respects with the requirements for bidders as set forth in the advertisement; unless the bid of the party furnishing the most approved design figured on the basis of the weights scheduled by him does not exceed the lowest bid submitted, on any design, by more than seven hundred and fifty dollars, in which case the said party furnishing the accepted design shall receive the award, subject to all of the conditions and limitations set forth in the advertisement. If the party furnishing the approved design is not the lowest bidder under the conditions hereinbefore set forth, then he is to receive from the Sanitary District of Chicago the sum of seven hundred and fifty dollars for the use of his design and the drawings illustrating it, tracings of which he shall furnish. But it is to be expressly understood that where the design adopted is used for more than one structure it shall be paid for but once, and shall affect the award in the case of one structure only.

The submission of a proposal for the work shall be an admitted acceptance of all of the foregoing conditions by the party making it.

First—The work covered by and included in these specifications is the building of certain highway bridges, more particularly designated as

Bridge No. 1, Romeo, at Station 1359.

Bridge No. 2, Lemont, at Station 1128+69.

Bridge No. 3, Willow Springs, at Station 739+72.

The above stationing being that of the Main Drainage Channel.

*General Description*—The bridges covered by these specifications are of the "swing" type, with unequal arms properly counter-balanced. The radius of the long arm of bridge No. 1 to be two hundred and four (204) and of bridges Nos. 2 and 3 to be two hundred and two (202) feet. The radius of the short arm to be one hundred (100) feet for each structure. The width between centers of trusses to be twenty-two (22) feet. The height at portals to be twenty (20) feet between centers of pins in top and bottom chords at first vertical post of end panels. Height at center of bridge to be as per accepted design. The depth allowed for floor system from top surface of floor to lowest projection of iron work will be as follows for each of the respective bridges:

Bridge No. 1, four feet six inches... (4'6")

Bridge No. 2, three feet..... (3' )

Bridge No. 3, three feet..... (3' )

*The Drum*—The diameter of the rolling circle to be twenty-nine (29) feet; the depth allowed from the floor line to the top of the pivot pier may be ten (10) feet for each bridge. There are to be forty-four (44) wheels of cast iron twenty (20) inches in diameter and five (5) inches face; they shall be turned to a uniform size and true bevel, and the edges shall be beveled for a width of three-eighths ( $\frac{3}{8}$ ) of an inch on each face to an angle of forty-five (45) degrees. The lower track may be of cast iron with steel cap, said cap to be not less than five inches by one and three quarters ( $1\frac{3}{4}$ ) inches thick at center, fastened to cast iron circle with seven-eighths ( $\frac{7}{8}$ ) inch composition bolts tapped into track; all secured to masonry of center pier with one and one-quarter ( $1\frac{1}{4}$ ) inch bolts.

The upper track shall be of steel, six (6) inches wide by one and three-quarter



( $1\frac{3}{4}$ ) inches thick at center, shall be secured to drum with seven-eighths ( $\frac{7}{8}$ ) inch compression bolts tapped into the track; both tracks shall be tool finished on the face to the proper bevel and shall be set perfectly level in place and joints secured from inequalities; both tracks and wheels shall have witness marks which must coincide at all points during the rotation of the bridge; center step shall be of cast iron of approved form and section, lifting wedges and pintle of steel and loose washers of case hardened steel. The drum to be built to a true circle and the form maintained by radial struts abutting against a cast iron spider.

The gear circle, boxes and pedestals supporting shafting and gearing shall be cast iron, the boxes properly babbitted. Shafting shall be Bessmer steel; pedestals supporting the bridge shall be wrought iron forgings, bored true and accurate to receive the pins and shall be firmly seated and bolted to the bolsters.

The crown wheel on pinion shaft and the gearing for hand turning shall be cast steel. All other gearing and pinions shall be phosphor bronze of suitable degree of hardness.

All bolts used on track, gear circle, boxes and pedestals, with their braces and connections, shall be turned and the holes reamed and accurate fitted together. No rough, unfinished or imperfect joints or connections will be allowed on the work. There shall be two levers for operating the bridge by manual power. The shafts shall be three inches in diameter and the levers of clear, straight grained Norway pine sixteen feet long.

The contractor shall furnish the following list of duplicate parts, which must be turned, bored and fitted for their respective places ready for immediate use:

One pinion shaft with pinion and arm wheel on same; two each of all toothed wheels; two sections of bottom track; two sections of top track and six wheels. All patterns for wheels, tracks, pinions, boxes and gearing will become the property of the Sanitary District.

*End Tracks and Bearings*—The end tracks shall be steel one and one quarter by six inches, tapped to the under side of end floor beams.

*End Wheels*—There shall be four bear-

ing wheels on each abutment of the bridge made of cast iron, face of wheel six inches beveled three-eighths of an inch on each side, diameter twelve inches. Diameter of wrought iron axle, three and one-half inches. All wheels to be truly centered and turned to uniform size. These wheels to be carried by cast frames fitted with babbitted journal boxes which may be adjusted as to height by wrought iron fillers. Frames to be fastened to bridge seat by one and one-half ( $1\frac{1}{2}$ ) inch stone bolts cemented in.

*The Latch*—Latches shall be provided at each end of the bridge which shall engage corresponding catches on the abutments automatically, forming a secure lock for the bridge in its traffic position. The unlocking to be effected by a lever at the turn table through proper connections to the latches.

*Signal Ball*—The signal ball shall be made of sixteen-ounce copper, and mounted on a staff of two and one-half-inch gas pipe, with suitable chains and pulleys for raising and lowering it. The screen for same shall be of wrought iron of a close pattern, and a suitable wind vane and streamer shall be fixed above the ball.

*Girders for Engine House*—Girders shall be framed into the vertical posts of the panel over the pivot pier transversely to carry floor joists of engine house to be built hereafter. These girders to be proportioned to carry a floor load of 150 pounds per square foot, the length of the panel by the width of the bridge giving the area upon which the weight is to be figured.

*General Description*—All parts of the structure shall be of steel, except the flooring, floor joists and wheel guards, when wooden floors are used. Cast iron or steel may be used in the machinery of movable bridges, and in special cases for bed-plates.

The floor joists will rest upon transverse iron floor beams. They will be spaced not over 2 feet centers, and will lap by each other, so as to have a full bearing on the floor beams, and will be separated  $\frac{1}{8}$  inch for free circulation of air, provided the depth allowed for the floor system admits of this construction. Their scantling will vary in accordance with the length of panels selected, but shall never be less than 3 inches wide.

The floor plank shall be yellow pine

three inches thick, laid with  $\frac{1}{4}$ -inch openings, and spiked to each supporting joist, to be laid diagonally, and covered with  $1\frac{1}{2}$ -inch white oak plank laid at right angles to center line, all plank to be laid with heart side down.

All joists to be of yellow long leaf Georgia pine, and the extreme fibre strain shall not exceed 1,200 pounds per square inch.

In calculating the strains for live loads each arm of the bridge shall be treated as if it were a fixed span, and its length shall be considered as the distance from the center of its end pin to the nearest panel point on the turn table; provided an acceptable design for lifting the shore ends from abutment seats by application of power located on or above the drum is submitted (in which case the end wheels will be omitted); otherwise the top and bottom chords will be continuous throughout both arms.

In calculating the strains for dead loads, one-third ( $\frac{1}{3}$ ) of the load shall be considered as concentrated at the upper chord panel points and two-thirds ( $\frac{2}{3}$ ) of the load at the lower chord panel points.

The structure to be proportioned to carry the following loads:

First. The weight of the iron in the structure.

Second—The weight of the floor, each foot of board measure to weigh four (4) pounds for oak and three (3) pounds for pine wood. These two items taken together shall constitute the "dead load."

Third. A live or moving load of 80 pounds per square foot on the short arm and of 60 pounds on the long arm, or a concentrated load of 8 tons on two pair of wheels 8 feet centers, 4 tons on each pair. The least load to be considered however will be 1,500 pounds per lineal foot.

*Wind Bracing*—To provide for wind strains and vibrations the top lateral bracing shall be proportioned to resist a force of 150 pounds for each foot of span and bottom laterals to resist a lateral force of 300 pounds for each foot of span; 150 pounds of this to be treated as a moving load.

*Variations in temperature* to the extent of 150 degrees shall be provided for.

All parts shall be so designed that the

strains coming upon them can be accurately calculated.

#### PROPORTION OF PARTS.

*For Tensile Strains*—All parts of the structure shall be proportioned in tension by the following allowed unit strains:

	Pounds per Square Inch.	
On lateral bracing.....	18,000	
On solid rolled beams, used as cross floor beams and stringers.....	14,400	
On bottom flange of riveted cross girders, net section.....	14,400	
On bottom flange of riveted floor stringers, net section.....	14,400	
On floor beam hangers and other similar members liable to sudden loading, bar steel with forged ends	10,800	
On floor beam hangers and other similar members liable to sudden loading (plates or shapes), net sec- tion.....	8,400	
	<i>Live Load.</i>	<i>Dead Load.</i>

Bottom chords, main diago- nals, counters and long verticals (forged eye bars)	12,000	24,000
Bottom chords and flanges, main diagonals, counters and long verticals (plates or shapes) net section....	10,500	21,000

In computing strains on members which are in tension while the bridge is being swung, only three-fourths ( $\frac{3}{4}$ ) of the above unit strain for dead load will be allowed.

The areas obtained by dividing the live load strains by the live load unit strains will be added to the areas obtained by dividing the dead load strains by the dead load unit strains to determine the sectional area of any member.

Single angles subject to direct tension must be connected by both legs or the section of one leg only will be considered effective.

In members subject to tensile strains full allowance shall be made for reduction of section by rivet holes, screw threads, etc.

Compressive members shall be proportioned by the following allowed unit strains:

Chord segments—

$$P = 12,000 - \frac{56l}{r} \text{ for live load strain.}$$

$$P = 24,000 - \frac{110l}{r} \text{ for dead load strain.}$$



All posts—

$$P = 10,000 - 70 \frac{l}{r} \text{—for live load strain.}$$

$$P = 20,000 - 140 \frac{l}{r} \text{—for dead load strain.}$$

$$P = 16,000 - 105 \frac{l}{r} \text{—for wind strains.}$$

Lateral struts—

$$P = 13,000 - 80 \frac{l}{r} \text{—for assumed initial strain.}$$

$P$  = the allowed compression per square inch of cross-section.

$l$  = the length of compression member in inches.

$r$  = the least radius of gyration of the section in inches.

No compression member, however, proportioned by the above formula shall have a length exceeding 45 times its least width. For ratios greater than 45 the constant in the above formula will be reduced proportionately. In computing strains on members which are in compression while the bridge is being swung only three-fourths ( $\frac{3}{4}$ ) of the above unit strains for dead load will be allowed.

The lateral struts to be proportioned by the foregoing formula to resist only the resultant due to an assumed initial load of 12,000 pounds per square inch upon all the rods attached to them assumed to be produced by adjusting the bridge.

Members subject to alternate strains of tension and compression shall be proportioned to resist each kind of strain. Both of the strains shall, however, be considered as increased by an amount equal to 8-10 of the least of the two strains, for determining the sectional areas by the above allowed unit strains.

*Effect of Wind on Chord Strains*—The strains in the chords and end posts from the assumed wind forces need not be considered, except as follows:

First—When the wind strains per square inch on any member exceed one quarter of the maximum strains per square inch due to the dead and live loads upon the same member. The section shall then be increased until the total strain per square inch will not exceed by more than one-quarter the maximum fixed for dead and live loads only.

Second—When the wind strain alone or in combination with a possible temperature strain, can neutralize or reverse the tension in any part of the lower chord, from dead load only.

*Rivets, Bolts and Pins*—The rivets and bolts connecting the parts of any member must be so spaced that the shearing strain per square inch shall not exceed 10,800 pounds, or  $\frac{3}{4}$  of the allowed strain per square inch upon that member; nor the pressure upon the bearing surface per square inch of the projected semi-intrados (diameter multiplied by thickness of piece) of the rivet or bolt hole exceed 18,000 pounds, or one and one-half times the allowed strain per square inch upon that member. In the case of field riveting the above limits of shearing strain and pressure shall be reduced one-third part. Rivets must not be used in direct tension.

Pins shall be so proportioned that the shearing strain shall not exceed 10,800 pounds per square inch; nor the crushing strain upon the projected area of the semi-intrados of any member connected to the pin be greater per square inch than 18,000 pounds, or one and one-half times the allowed strain per square inch; nor the bending strain exceed 21,600 pounds per square inch when the centers of the bearings of the strained members are taken as the points of application of the strains.

*Combined Strains*—In case any member is subjected to a bending strain from local loadings, such as distributed floors on deck bridges, in addition to the strain produced by its position as a member of the structure, it must be proportioned to resist the combined strains.

If the fibre strain resulting from the weight only, of any member, exceeds 10 per cent of the allowed unit strain on such member, such excess must be considered in proportioning the areas.

*Web-plates*—The steel in the web-plates shall not be subjected to a shearing strain greater than 6,000 pounds per square inch; but no web-plates shall be less than three-eighths of an inch in thickness.

The webs of plate girders must be stiffened at intervals, about the depth of the girders, wherever the shearing strain per



square inch exceeds the strain allowed by the following formula:

$$\text{Allowed shearing strain} = \frac{18000}{1 + \frac{h^2}{3000}}$$

where  $h$  = ratio of depth of web to its thickness.

*Details of Construction*—All the connections and details of the several parts of the structures shall be of such strength that, upon testing, ruptures shall occur in the body of the members rather than in any of their details or connections.

Preference will be had for such details as shall be most accessible for inspection, cleaning and painting; no closed sections will be allowed.

All web-plates must have stiffeners over bearing points and at points of local concentrated loadings.

The pitch of rivets in all classes of work shall never exceed six (6) inches, or sixteen times the thinnest outside plate, nor be less than three diameters of the rivet.

The rivets shall generally be  $\frac{3}{8}$ ,  $\frac{1}{2}$  and  $\frac{3}{4}$  inch in diameter.

The distance between edge of any piece and the center of a rivet hole must never be less than  $1\frac{1}{4}$  inches, except for bars less than  $2\frac{1}{2}$  inches wide; when practicable it shall be at least two diameters of the rivet.

In punching plate or other iron, the diameter of the die shall in no case exceed the diameter of the punch by more than 1-16 of an inch, and all holes must be clean cuts without torn or ragged edges.

All rivet holes must be so accurately spaced and punched that when the several parts forming one member are assembled together, a rivet 1-16 inch less in diameter than the hole can generally be entered, hot, into any hole, without reaming or straining the iron by "drifts"; occasional variations must be corrected by reaming.

The rivets when driven must completely fill the holes. The rivet heads must be round and of a uniform size for the same sized rivets throughout the work. They must be full and neatly made, and be concentric to the rivet hole, and thoroughly pinch the connected pieces together. Wherever possible, all rivets must be ma-

chine driven. The machine must be capable of retaining the applied pressure after the upsetting is completed. No hand-driven rivets exceeding  $\frac{1}{8}$  inch diameter will be allowed.

Field riveting must be reduced to a minimum or entirely avoided where possible.

When members are connected by bolts which transmit shearing strains, the holes must be reamed parallel and the bolts turned to a driving fit.

The several pieces forming one built member must fit closely together, and when riveted shall be free from twists, bends or open joints.

All joints in riveted tension members must be fully and symmetrically spliced.

In compression members, abutting joints with planed faces must be sufficiently spliced to maintain the parts accurately in contact against all tendencies to displacement.

In compression members, abutting joints with untooled faces must be fully spliced, as no reliance will be placed on such abutting joints. The abutting ends must, however, be dressed straight and true, so there will be no open joints.

All the angles, filling and splice plates on the webs of girders and riveted members must fit at their ends to the flange angles sufficiently close to be sealed when painted against admission of water, but need not be too finished.

Web-plates of all girders must be arranged so as not to project beyond the faces of the flange angles, nor on the top be more than 1-16 inch below the face of these angles, at any point.

Wherever there is a tendency for water to collect, the spaces must be filled with a suitable water-proof material.

In girders with flange plates, at least one-half of the flange section shall be angles or else the largest sized angles must be used.

In lattice girders, the web members must be double and connect symmetrically to the web of the flanges.

The compression flanges of beams and girders shall be stayed against transverse crippling when their length is more than thirty (30) times their width.

The unsupported width of plates sub-

jected to compression shall not exceed thirty times its thickness; except cover plates of top chords and end posts, which will be limited to forty times their thickness.

The flange plates of all girders must be limited in width so as not to extend beyond the outer lines of rivets connecting them with the angles more than five inches or more than eight times the thickness of the first plate. Where two or more plates are used on the flanges, they shall either be of equal thickness or shall decrease in thickness outward from the angles.

No steel shall be used less than 3-16 inch thick, except for lining or filling vacant spaces.

The heads of eye bars shall be so proportioned and made, that the bars will preferably break in the body of the original bar rather than at any part of the head or neck. The form of the head and the mode of manufacture shall be subject to the approval of the Engineer. The heads must be formed either by the process of upsetting and forging or by the process of upsetting, piling and forging. No welding will be allowed in the body of the bars, nor in the process of piling, welding seams in any other direction than parallel to the sides of the original bars.

The bars must be free from flaws and of full thickness in the necks. They shall be perfectly straight before boring. The holes shall be in the center of the head and on the center line of the bar.

The bars must be bored to lengths not varying from the calculated lengths more than 1-64 of an inch for each 25 feet of total length.

Bars which are to be placed side by side in the structure shall be bored at the same temperature and of such equal length that upon being piled on each other the pins shall pass through the holes at both ends without driving.

The lower chord shall be packed as narrow as possible.

The pins shall be turned straight and smooth, and shall fit the pin-holes within 1-50 of an inch for pins less than 4½ inches in diameter; for pins of a larger diameter the clearance may be 1-32 inch.

The diameter of the pin shall not be less than three quarters the largest dimension

of any tension member attached to it. The several members attaching to the pin shall be so packed as to produce the least bending moment upon the pin, and all vacant spaces must be filled with wrought iron filling rings.

All rods and hangers with screw ends shall be upset at the ends, so that the diameter at the bottom of the threads shall be 1 16 inch larger than any part of the body of the bar.

All threads must be of the United States standard, except at the ends of the pins.

Floor beam hangers shall be so placed that they can be readily examined at all times. When fitted with screw ends they shall be provided with check nuts. Preference will be given to hangers without screw ends.

When bent loops are used they must fit perfectly around the pin throughout its semi-circumference.

All nuts on floor beam hangers and counter rods must have the bearing faces faced square to the axis of the screw ends.

Compression members shall be of steel and of approved forms.

The pitch of rivets at the ends of compression members shall not exceed four diameters of the rivets for a length equal to twice the width of the member.

The open sides of all compression members shall be stayed by batten plates at the ends and diagonal lattice-work at intermediate points. The batten plates must be placed as near the ends as practicable and shall have a length of one and one-half times the width of the member. The size and spacing of the lattice bars shall be duly proportioned to the size of the member. They must not be less than

1½x¼	inches for	5 to	6 inch	channels.
1¾x¼	"	"	7 "	8 "
2x5-16	"	"	9 "	12 "
2¼x¾	"	"	13 "	16 "
2½x7-16	"	"	17 "	20 "
2½x½	"	"	21 and upwards.	

They shall be inclined at an angle not less than sixty degrees to the axis of the member. The pitch of the laticing must not exceed the width of the channel plus nine inches.

Where necessary, pin-holes shall be reinforced by plates so the allowed pressure on the pins shall not be exceeded. These



reinforcing plates must contain enough rivets to transfer their proportion of the bearing pressure, and at least one plate on each side shall extend not less than six inches beyond the edge of the batten plates.

Where the ends of compression members are forked to connect to the pins, the aggregate compressive strength of these forked ends must equal the compressive strength of the body of members. In order to insure this result the aggregate sectional area of the forked ends at any point between the inside edge of the pin-holes and six inches beyond the edge of the batten plate shall be about double that of the body of the member.

In compression chord sections the material must mostly be concentrated at the sides, in the angles and vertical webs. Not more than one plate, and this not exceeding three-eighths of an inch in thickness, shall be used as a cover plate except when necessary to resist bending strains.

The sections of compression chords shall be connected at the abutting ends by splices sufficient to hold them truly in position.

The ends of all square-ended members shall be planed smooth, and exactly square to the center line of strain.

All members must be free from twists or bends. Portions exposed to view shall be neatly finished.

Pin holes shall be bored exactly perpendicular to a vertical plane, passing through the center line of each member when placed in a position similar to that it is to occupy in the finished structure. Abutting joints in truss bridges shall be in exact contact throughout.

In no case shall any lateral or diagonal rod have a less area than  $\frac{3}{4}$  of a square inch.

The attachment of the lateral system to the chords shall be thoroughly efficient. If connected to suspended floor beams the latter shall be stayed against all motion.

Preference shall be given for a stiff angle iron lateral system between the chords on the level of the floor.

All through bridges with top lateral bracing shall have wrought iron latticed portals, of approved design, at each end of the span, connected rigidly to the end posts. They shall be as deep as the speci-

fied head room will allow. Knee braces shall also be placed at each intermediate panel point, and connected to the vertical posts and top lateral struts for trusses 20 feet and less in depth.

When the height of the trusses exceed 20 feet an approved system of overhead diagonal bracing shall be attached to each post at an elevation sufficient to give the required head room and to the top lateral struts.

Pony trusses and through plate or lattice girders shall be stayed by knee braces or gusset plates attached to the top chords at the ends and at intermediate points not more than ten (10) feet or a panel length apart, and attached below to the cross floor beams or to the transverse struts.

All sheared edges of plates and angles to be planed off to a depth of one-quarter of an inch. All punched holes to be reamed to a diameter of  $\frac{1}{8}$  inch larger, so as to remove all the sheared surface of the metal.

No sharp or unfilleted re-entrant corners will be allowed.

All rivets to be of steel.

Any piece which has been partially heated or bent cold, to be afterwards wholly annealed.

Soft steel may be used under the same conditions as wrought-iron for all riveted work. Provided that, any rivet hole punched, as in ordinary practice will stand drifting to a diameter 25 per cent greater than the original hole without cracking, either in the periphery of the hole or on the external edges of the piece, whether they be sheared or rolled.

*Steel.* The steel shall be made from commercial Bessemer pig stock and shall in no case contain more than 1-10 of one per cent phosphor in finished product. The steel must be uniform in character for each specified kind. The finished bars, plates and shapes must be free from cracks on the faces or corners, and have a clean smooth finish. No work shall be put upon any steel at or near the blue temperature, or between that of boiling water and of ignition of hardwood sawdust.

All tests shall be made by samples cut from the finished material after rolling. The samples to be at least 12 inches long and to have a uniform sectional area not less than  $\frac{1}{2}$  square inch. All broken



samples must show uniform fine grained fractures of a blue steel gray color, entirely free from fiery lustre or a blackish cast.

*Medium steel* shall have an ultimate strength, when tested in samples of the dimensions above stated, of 62,000 to 68,000 pounds per square inch, an elastic limit of not less than 35,000 pounds, and a minimum elongation of 20 per cent in 8 inches. Before or after heating to a low cherry red and cooling in water at 82 degrees Fahrenheit, this steel must stand bending to a curve whose inner radius is one and a half times the thickness of the sample, without cracking.

*Soft Steel* shall have an ultimate strength, on same sized samples of 54,000 to 62,000 pounds per square inch, and elastic limit not less than 32,000 pounds per square inch, and a minimum elongation of 25 per cent in 8 inches. Before or after heating to a light yellow heat and quenching in cold water, this steel must stand bending 180 degrees, to a curve whose inner radius is equal to the thickness of the sample without sign of fracture.

All rivets will be made of soft steel and the steel for rivets must, under the above bending test, stand closing solidly together without sign of fracture.

*Cast Iron.* Except where chilled iron is required, all castings must be tough gray iron free from cold shorts or injurious blow holes, true to form and thickness, and of a workmanlike finish. Sample pieces, 1 inch square, cast from the same heat of metal in sand moulds, shall be capable of sustaining on a clear span of 4 feet 6 inches, a central load of 500 pounds when tested in the rough bar. A blow from a hammer shall produce an indentation on a rectangular edge of the casting without flaking the metal.

*Timber.* The timber shall be first class southern yellow pine or white oak bridge timber, sawed true and out of wind, full size, free from wind shakes, large or loose knots, decayed or sap wood, worm holes, or other defects impairing its strength or durability. It will be subject to the inspection and acceptance of the Engineer.

*Inspection.* All facilities for inspection of the materials and workmanship shall be furnished by the contractor. He shall furnish without charge such specimens

(prepared) of the several kinds of iron or steel to be used, as may be required to determine their character.

The contractor must furnish the use of a testing machine capable of testing the above specimens at all mills where the iron or steel may be manufactured, free of cost. Full sized parts of the structure may be tested at the option of the Engineer, but if tested to destruction, such material shall be paid for at cost, less its scrap value to the contractor, if it proves satisfactory. If it does not stand the specified tests, it will be considered rejected material, and be solely at the cost of the contractor.

*Painting*—All iron work before leaving the shop shall be thoroughly cleaned from all loose scale and rust, and be given one good coating of pure raw linseed oil, well worked into all joints and open spaces.

In riveted work the surfaces coming in contact shall each be painted before being riveted together. Bottoms of bed-plates, bearing-plates, and any parts which are not accessible for painting after erection, shall have two coats of paint; the paint shall be a good quality of iron ore paint, subject to the approval of the Engineer.

After the structure is erected, the iron work shall be thoroughly and evenly painted with two additional coats of paint, mixed with pure linseed oil, of such color as may be directed. All recesses which will retain water, or through which water can enter, must be filled with thick paint or some water-proof cement before receiving the final painting.

Pins, bored pin-holes and turned friction rollers shall be coated with white lead and tallow before being shipped from the shop.

*Erection*—The contractor shall furnish all staging and false work, shall erect and adjust all the iron work, and put in place all floor timbers, guards, etc. complete.

The contractor shall so conduct all his operations as not to interfere with the work of other contractors, or close any thoroughfare by land or water, except by written consent of the Engineer.

The contractor shall assume all risks of accidents to men or material prior to the acceptance of the finished structure. The contractor must also remove all false work, piling and other obstructions, or unsightly material produced by his operations.

*Final Test*—Before the final acceptance the Engineer may make a thorough test by passing over each structure the specified loads, or their equivalent, or by resting the maximum load upon the structure for 12 hours. After such tests the structures must return to their original positions without showing any permanent change in any of their parts.

*Workmen*—The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Chief Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

*Damages*—If any damage shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands, or to any property adjoining or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, for which the contractor herein is legally liable, the Engineer shall have the right to estimate the amount of said damage and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damage shall be deducted from the money due said contractor under this contract.

Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person growing out of any act or doing of himself or his employes that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against said Sanitary District for or on account of any injuries or damages received or sustained by any person or persons by or from said contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any failure or negligence in guarding or protecting the same; or by or on account of any act or omission of said contractor, his agents or employes; and the said contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suits or claims for damages, as aforesaid, shall have been settled, and

evidence to that effect furnished to the satisfaction of the said Board of Trustees.

*Patents*—All fees for any patented invention, article or arrangement used upon or in any manner connected with the construction, erection or operation of the bridge or its appurtenances shall be included in the price stipulated in the contract for said bridge, and the contractor shall forever hold harmless the Sanitary District of Chicago against any and all demands for such fees or claims.

*Time*—The contractor agrees to begin work within fifteen days after the execution of this contract.

All the work provided to be done under this contract shall be completed and ready for inspection on or before the 1st day of May of the year 1895.

*Price*—In consideration of the said work being carried on and completed in time and manner as specified, the said party of the first part agrees to pay to the said party of the second part, and the said party of the second part agrees to receive and accept as full compensation therefor, including the furnishing by him of all necessary materials, tools, labor, machinery and appliances:

For each pound of steel.....	Dollars (\$ )
For each pound of wrought iron.....	.....Dollars (\$ )
For each pound of cast iron....	Dollars (\$ )
For each pound of pig iron....	Dollars (\$ )
For each 1,000 ft. B. M. lumber.....	.....Dollars (\$ )

*Time and Manner of Payment*—It is agreed by the party of the first part that when the entire iron work shall have been delivered at the site of erection, payment shall be made to the party of the second part to the amount of sixty (60) per cent. of the aggregate cost of the work covered by the contract, upon written certificate from the Chief Engineer that such approximate amount of work has been done. The remaining forty (40) per cent. to be paid within thirty days of the completion of the work and its acceptance by the first party.

Should the location of any surface highway or railroad which may be determined within six months of the date of this contract require the erection of a fixed span on either approach to the bridge or bridges to which this contract applies, then the



party of the second part shall supply all of the labor, tools and material necessary for the erection of said span in accordance with the dimensions prescribed by the first party and governed by the general specifications set forth in this contract and the special specifications for fixed spans set forth in Cooper's specifications for iron and steel highway bridges; and the second party shall be paid for the completed work the prices hereinbefore stipulated per pound and per thousand feet B. M. for the several kinds of material entering into the construction of the said fixed span.

*Certificate*—On all work provided for in this contract being completed, in accordance with the contract and to the full satisfaction of the Chief Engineer, and on its being inspected by him and a certificate made by him setting forth the amount of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to the said second party by the said certificate of the said Chief Engineer.

*Failure to Complete*—The entire iron work for the structure herein provided for shall be delivered at the site of the erection on or before March 10, 1895, and all the work provided to be done under this contract shall be completed and ready for inspection on or before the 1st day of May, A. D. 1895.

Should there be a failure by second party to deliver said iron work of the character and strength herein provided for by said 10th day of March, 1895, or if, after delivery of same as herein provided, said contractor shall fail financially, either before or after having been paid the 60 per cent. of the contract price as hereinafter provided, and be unable to carry out said contract and complete said work, then, in that case, the said party of the first part shall have the power to complete said work by contract or otherwise, at its discretion, and charge up the cost of so completing said work to said contractor. Should the amount remaining unpaid of the contract price not suffice therefor, then said contractor and his bondsmen shall be held liable for the deficiency.

The contractor will be responsible for the entire work until its final completion and acceptance as herein provided.

*Payment of Laborers*—Said contractor shall pay the laborers employed by him promptly at regular intervals, and at least twice each month, and shall not pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States. And if at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed, and in manner aforesaid, or for material furnished upon said work, then the party of the first part shall have the power to pay for such labor or such material out of any money or moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor. In any such case the party of the first part is hereby authorized and empowered by the said party of the second part to ascertain the amount or amounts due or owing from said contractor to any laborer or laborers, or to any person for material furnished, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said contractor, and the amount or amounts so found by the said party of the first part to be due and owing to said laborer or laborers, or to said material men, shall be final and conclusive as against said contractor, and may thereafter be paid over by the said first party to such laborer, laborers or material men.

*Contractor's Bond*—The contractor shall furnish a bond in the sum of ten thousand dollars, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of said Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract, and should the sureties on said bond at any time fail financially, or be in the opinion of the said Board of Trustees, insufficient security for the penalty of said bond, then, in that case, they may, on giving ten days' notice thereof in writing, require said contractor to furnish a new or additional bond in the place of the bond so having become insufficient or worthless.

*Final Payment*—The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and



all of the stipulations hereinbefore mentioned are complied with and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and delivery of such certificate pay, and it hereby binds itself to pay the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

*In witness whereof*, on the day and year first above written, the said Sanitary District of Chicago has caused this Agreement to be signed by its President, and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set ..... hand and seal.

THE SANITARY DISTRICT OF CHICAGO.

By .....  
*President.*

Attest: .....  
*Clerk.*

[SEAL.] .....[SEAL.]  
.....[SEAL.]  
.....[SEAL.]  
.....[SEAL.]”

The following is the  
FORM OF PROPOSAL:

“To the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The undersigned hereby certi..... that..... have examined the plans on file in the office of the Chief Engineer of the Sanitary District of Chicago, the annexed specifications and forms of contract for bridging on the Main Drainage Channel of said Sanitary District as herein described, and propose to do all the work and to furnish all material, tools,

labor and all appliances and appurtenances necessary to the full completion of the same, at the rates and prices for the said work, as follows, to-wit:

Bridge.	Kind of Material	Estimated Amt. of Material.	Price Bid.	Cost.
No. 1.	Steel.....	.....lbs.	.....	.....
	Wrought Iron..	.....lbs.	.....	.....
	Cast Iron.....	.....lbs.	.....	.....
	Pig Iron.....	.....lbs.	.....	.....
	Timber.....	.....ft. b.m.	.....	.....
	Total cost.....			
No. 2.	Steel.....	.....lbs.	.....	.....
	Wrought Iron..	.....lbs.	.....	.....
	Cast Iron.....	.....lbs.	.....	.....
	Pig Iron.....	.....lbs.	.....	.....
	Timber.....	.....ft. b.m.	.....	.....
	Total cost.....			
No. 3.	Steel.....	.....lbs.	.....	.....
	Wrought Iron..	.....lbs.	.....	.....
	Cast Iron.....	.....lbs.	.....	.....
	Pig Iron.....	.....lbs.	.....	.....
	Timber.....	.....ft. b.m.	.....	.....
	Total cost.....			

The above proposals are based upon the conditions and stipulations made in the advertisements inviting proposals for said work, and in accordance with the contract, specifications and plans for the same on file in the office of the Chief Engineer of the said Sanitary District, and should the said Board of Trustees award any of said work to the undersigned, then.....agree to.....enter into contract for the same and to do the work as specified.

In accordance with the requirements of said advertisement, there is deposited herewith the sum of.....dollars, which, under the terms of the advertisement, entitle.....to bid on said work, the same to be refunded to.....upon the faithful performance of all the conditions stipulated in the said advertisement for proposals.

It is further agreed that should the within proposal for building said bridge over said Main Drainage Channel be awarded to.....and.....should fail or neglect to enter into contract with the said Sanitary District in the time and in the manner required by the said adver-

tisement for proposals, and to furnish bonds as therein required to the satisfaction of the said Board of Trustees, then the said sum of.....dollars deposited herewith shall become forfeited to the Sanitary District as liquidated damages.

The following is

### THE ADVERTISEMENT:

"SANITARY DISTRICT OF CHICAGO.

*To Contractors:*

Proposals for supplying and erecting certain bridge masonry along the line of the Main Drainage Channel" will be received by the Clerk of the said Sanitary District at Room H, Rialto Building, Chicago, Illinois, until 12 M. (standard time) of Wednesday, the 31st day of October, A. D. 1894, and will be publicly opened by said Board of Trustees at the regular meeting held that day, or at a special meeting held for that purpose.

The bridges for which the said tenders are invited are three in number, and their sites are as follows: Romeo, near the west end of Contract Section No. 12 of the Main Drainage Channel; Lemont, near the center of Contract Section No. 8 of the said channel, and Willow Springs, near the east end of Contract Section No. 1 of the Main Drainage Channel.

All of said bridges will be treated as a single contract in canvassing proposals and making awards.

Each proposal shall be accompanied by a certified check or cash to the amount of \$1,000. All checks to be drawn on some responsible bank doing business in the City of Chicago, and made payable to the Clerk of the Sanitary District of Chicago. Said amount of \$1,000 to accompany each bid will be held by the Sanitary District until all of said proposals have been canvassed and contracts awarded and signed. The return of said check or cash to the bidder to whom said work shall have been awarded being conditioned upon his appearing within seven days after notice of such award being given, with bondsmen, and executing a contract with the Sanitary District for said work so awarded and giving a bond satisfactory to the Board of Trustees for the fulfillment of the same in the amount of \$5,000.

All proposals must be made upon blank forms furnished by the Sanitary District, and must give the price for each separate item of the work as provided in said forms. The bids will be compared in accordance with the terms of the specifications.

No proposal will be considered unless the party making it shall furnish evidence satisfactory to the Board of Trustees of his ability to do the work, and that he has the necessary pecuniary resources to fulfill the conditions of the contract, provided such contract shall be awarded him.

Bidders are required to state in their proposals their individual names and places of residence in full.

Specifications and plats may be seen at the office of the Chief Engineer, Rialto Building, Chicago, Ill.

The Board of Trustees reserves the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,

By FRANK WENTER,

*President of its Board of Trustees.*

Attest:

THOMAS F. JUDGE,

*Clerk.*

CHICAGO, Ill., August 29th, 1894."

The following are

### THE SPECIFICATIONS, ETC.:

"SANITARY DISTRICT OF CHICAGO.

Contract and specifications for bridge masonry on the line of the Main Drainage Channel.

*This Agreement, Made and entered into this ..... day of ..... A. D. 189.., by and between the Sanitary District of Chicago of the first part, and ..... of ..... in ..... of the second part.*

A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part, by the said party of the first part, and



under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all material (except building stone), tools, explosives, labor and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated that are necessary to the complete transportation of the building stone and the erection of the masonry on the line of the said Main Drainage Channel, known and distinguished by the specifications herein contained, and the plans accompanying them, as bridges at Willow Springs, Lemont and Romeo:

Bridge No. 1, Romeo, at Station 1359.

Bridge No. 2, Lemont, at Station 1128 + 69.

Bridge No. 3, Willow Springs, at Station 739 + 72.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his properly authorized agents shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit, and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto, relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract, they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees or their duly authorized and accredited agents.

Wherever the word "Engineer" is used herein, it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents,

limited by the particular duties entrusted to them.

Wherever the word "Contractor" is used herein, it shall be understood to mean the person or persons, or co-partnership or corporation entering into the contract as party of the second part.

### SPECIFICATIONS

for the construction of bridge masonry, including abutments, piers and pivot piers. The accompanying drawings form part of these specifications. The figured dimensions on the drawings are to be taken whenever they do not agree with the dimensions obtained by scaling from such drawings.

The *Stone* used to be taken by the contractor from the stock of bridge (dimension) stone owned by this District and piled on its ground on Section No. 7, near the east end thereof. Stone to be selected for regular courses, no course to be less than twelve (12) inches in thickness nor of a less area than five (5) square feet.

*Masonry*—The stone is to be laid in regular courses, decreasing in thickness from bottom to top, no course to be less than twelve (12) inches in thickness. All of the stone in each course to be of uniform thickness, laid level throughout, to be well shaped, of suitable size, and brought to close joints. The beds and joints are to be dressed fair and true. Stones must be dressed to lie upon their natural beds, and laid alternately headers and stretchers so as to form a perfect bond. The width of any stretcher measured on its bearing surface shall never be less than one and one half times its thickness and its length never less than three times its thickness; and there shall not be less than one header in every six feet of face of each course.

The backing stone to be of large size, with parallel beds laid so as to break joints with each other, and with the face stones in such manner as to form a good bond throughout the entire mass of masonry.

*Joints*—No horizontal joints or vertical joints on face to be wider than one-half ( $\frac{1}{2}$ ) of one inch. All joints to be completely filled with the specified mortar. Before the work is accepted, all visible joints shall be raked out to a depth equal to three times their width and pointed with Portland cement mortar.



*Pivot Piers*—In pivot piers the center of the pier must be built of dimension stone none of which shall be less than four (4) feet square and all perfectly bonded with the surrounding mass of masonry.

All exposed faces to be "rock-faced" with cut margins of one inch, no projection of more than three inches beyond the neat lines of structure will be allowed. All exposed angles to be cut clean and sharp.

The top course of the pivot pier to be of cut stone, perfectly level and true, accurately prepared to receive step, circular track and rack. Four shallow drains shall be cut, three (3) inches wide, at right angles to each other, one and one half ( $1\frac{1}{2}$ ) inches deep at edge of top course and sloping back to nothing in a distance of six (6) feet from outer edge for carrying off rain and melted snow water.

Four (4) pockets shall be cut in the proper positions to admit of dropping pinion shafts when the bridge is in either of its normal positions for open or closed.

The center stone for receiving steps shall be "Bedford stone" six feet square and of the same thickness as the rest of the top course.

On all piers and abutments the bridge seat course and the face and top course of parapet shall be of cut stone. All stone used shall be clean and sound.

#### MORTAR.

*Sand* used, to be clean, sharp and free from loam and pebbles.

*Cement*—The best Portland cement shall be used, brand and quality to be subject to approval by the Chief Engineer, who shall from time to time cause such tests to be made as may seem to him proper for determining the quality of the cement which is shipped for use on the work. The development of tensile strength shall be 400 pounds per square inch after having set seven days. All lumpy, dirty, or damaged cement shall be rejected; also damaged or short weight packages.

*Mixing*—The mixture of sand and cement shall be in the proportion of one part cement, three parts sand; these volumes must be thoroughly incorporated with each other before water is added. All mortar shall be freshly mixed in clean boxes. No hard or partially set mortar

shall be used. Water for mixing shall be clean.

*Portland Cement Mortar* shall be used for pointing. The proportions used to be one part cement to two parts sand, mixing, etc., to be as prescribed hereinbefore.

*Foundations*—All foundations to be prepared to receive the masonry by the party of the first part.

*Measurement*—Measurement of all masonry shall be by the cubic yard, and payments shall be made upon the basis of the actual cubical contents of the completed masonry.

*Changes in Plan*—The amount of masonry figured from the plans is approximate, and the Sanitary District reserves the right to make alterations in the line, grade, plan, form or dimensions of the work herein provided for, either before or after beginning the construction thereof; provided, that if alterations are made the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of work to be done, they shall not constitute a claim for damages or for anticipated profits on the work that may be dispensed with; if they increase the amount of work such increase shall be paid for according to the quantity of work actually done, and at prices and rates established for such work under this contract.

Notice of change of plan must be given the contractor in writing, and it is expressly agreed that no alterations or additions, or extra work are to be paid for unless directed in writing.

*Additional Masonry*—Should the location of any surface highway or railroad which may be determined upon within six months of the date of this contract require the erection of a fixed span or spans on either approach to the channel, then the party of the second part shall supply all tools, labor and material, except building stone, for the erection of the necessary piers or abutments, subject to all of the conditions hereinbefore set forth and at the prices per cubic yard hereinbefore named.

*Extra Work*—All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material are furnished or such damages occur, and they must

also be presented to him in writing at the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract.

Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Engineer shall fix such prices for the work as he shall consider just and equitable, and the contractor shall abide by such prices; provided he enters upon such work with full knowledge of the prices so fixed by the Engineer, but if the contractor declines executing said work at the prices fixed by the Engineer, then the Sanitary District may enter into contract with any person or persons for its execution, the same as if this contract had never existed; and if extra work, or work not provided for in this contract, is performed by the contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept of said prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction for the same, the actual cost of the work with 15 per cent added. Provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

*Responsibility of Contractor*.—All the work provided for in this contract is to be done under the direction and supervision of the Chief Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Chief Engineer to properly give lines and grades and to measure the work from time to time.

All work will be subject to inspection by the said Engineer and his said agents, and if not in accordance with the requirements

of this contract, it is to be made good by the contractor.

The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sub-let all or any part of it, it being distinctly understood and agreed that the sub-letting of the work covered by this contract, or any part thereof, shall, after 30 days' notice, work a forfeiture of the contract, at the option of the Sanitary District.

The contractor will not be allowed to assign, by power of attorney or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract, as to progress and character of work, he shall be duly notified in writing, and thirty days after the giving of said notice the party of the first part may declare this contract forfeited, if there is substantial failure to comply with its provisions.

*Tools*.—The contractor is to furnish all the tools of every kind and description, including pumps, cars and track necessary to the full and complete carrying out of this contract, and, on completion of the work, is to remove all tools, buildings and material of all kinds from the right of way of the Main Drainage Channel.

*Precautions*.—Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

*Workmen*.—The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

*Damages*.—If any damages shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands or to any property adjoining, or in the vicinity of the work herein contracted to be done, or to a neighboring



contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damages shall be deducted from the money due said contractor under this contract.

Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person, growing out of any act or doing of himself or his employes, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for, or on account of any such injuries or such damages received or sustained by any person or persons by or from said contractor, his servants, agents or employes, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any act or omission of said contractor, his agents or employes; and the said contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suit or claim for damages, as aforesaid, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

*Time*—The contractor agrees to begin the work of transporting stone from the stock of this District on Section No. 7 to the site or sites of the work covered by this contract within 15 days after said contract shall have been executed and to prosecute the building of all of the masonry herein provided for, so as to complete the same on or before March 1st, 1895.

*Prices*—In consideration of the said work being carried on and completed in time and manner as hereinbefore specified, the said party of the first part agrees to pay to the said party of the second part the following amounts per cubic yard and the said party of the second part agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the material, except building stone, tools, labor, etc., to-wit:

(a.) For each cubic yard of completed

masonry in abutments and in rectangular piers, as per the terms of this contract, the sum of.....dollars, (\$ ).

(b.) For each cubic yard of completed masonry in pivot piers, including Bedford stone center block, as per the terms of this contract, the sum of.....dollars (\$ ).

*Time and Manner of Payment*—It is agreed by the party of the first part, that on or before the 10th and 25th days of each month, during the progress of the work, and subject to the provisions hereinbefore specified under the head "Time," payment will be made to the said party of the second part, to the amount of  $87\frac{1}{2}$  per cent. of the contract price of the approximate amount of work done during the previous half month, upon written certificates from the Engineer that such approximate amount of work has been done during that period,  $12\frac{1}{2}$  per cent. being reserved until the completion and acceptance of the whole work.

*Certificate*—On all the work provided for in this contract being completed in accordance with the contract and to the full satisfaction of the Chief Engineer, and on its being inspected by him and a certificate made by him setting forth the amounts of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to said second party by the said certificate of the said Chief Engineer, including the  $12\frac{1}{2}$  per cent. reserve.

*Failure to Complete*—It is further agreed by the said party of the second part that, if the work to be done under this contract shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of the opinion and shall so certify in writing to the said party of the first part that said work or any part thereof is unnecessarily and unreasonably delayed, or that the contractor is willfully and persistently violating any of the conditions or covenants of this contract, or is not fulfilling said contract in



good faith, the said party of the first part shall have the power to notify said contractor to discontinue all work, or any part thereof, as may be designated by said party of the first part, and the said party of the first shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor, and the balance, if any, shall be paid by said contractor on demand.

*Failure to Pay Laborers*—If at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work, for ten days after it shall have become due, then the party of the first shall have power to pay for such labor or such material out of any money or moneys that may be due to said contractor, and said amount so paid shall be retained out of any money due or to become due to said contractor.

In any such case the party of the first part is hereby authorized and empowered by the said party of the second part to ascertain the amount or amounts due or owing to any laborer or laborers from said contractor, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said contractor, and the amount or amounts so found by the said party of the first part to be due and owing to said laborer, or laborers, shall be final and conclusive evidence as against said contractor, and may thereafter be paid over by the said first party to such laborer or laborers.

*Final Payment*—The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or

materials except in the manner set forth in this agreement, nor until all of the stipulations hereinbefore mentioned are complied with and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and the delivery of such certificate, pay, and it hereby binds itself to pay, the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

*In Witness Whereof*, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set..... hand.. and seal..

THE SANITARY DISTRICT OF CHICAGO.

By.....,  
*President.*

Attest:  
.....,  
*Clerk.*

[SEAL.]

.....[SEAL.]  
.....[SEAL.]  
.....[SEAL.]  
.....[SEAL.]”

#### FORM OF PROPOSAL:

“*To the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The undersigned hereby certi.....that.....ha.....examined the plans on file in the office of the Chief Engineer of the Sanitary District of Chicago, the annexed specifications and forms of contract for bridge masonry on the Main Drainage channel of said Sanitary District as therein described, and propose to do all

the work therein called for and to furnish all of the material, except stone for the mass of the masonry, but including the center stone from Bedford quarries as designated and described, tools, labor and all appliances and appurtenances necessary to the full completion of the same at the rates and prices for the said work as follows, to-wit:

Abutments and rectangular piers,	<i>Price Bid.</i>
per cubic yard.....	\$ .....
Pivot piers, per cubic yard.....	.....

The above proposal is based upon the conditions and stipulations made in the advertisement inviting proposals for said work and in accordance with the contract, specifications and plans for same on file in the office of the said Chief Engineer of the Sanitary District, and should the said Board of Trustees award the said work to the undersigned, then.....agree to.....enter into contract for the same and to do the work as specified. In accordance with the terms of said advertisement there is deposited herewith the sum of.....dollars, which, under the terms of the advertisement, entitled.....to bid on said work, the same to be refunded to.....upon the faithful performance of all the conditions stipulated in said advertisement for proposals.

It is further agreed that should the within proposal for building the masonry designated therein be awarded to.....and.....should fail or neglect to enter into contract with the said Sanitary District in the time and manner required by said advertisement for proposals, and to furnish bonds as therein required to the satisfaction of the said Board of Trustees, then the said sum of.....dollars deposited herewith shall become forfeited to the Sanitary District as liquidated damages."

#### APPROXIMATE QUANTITIES OF MASONRY.

	<i>Cubic Yards.</i>
Bridge No. 1.....	382
Bridge No. 2.....	252
Bridge No. 3.....	394
Total.....	<u>1,028</u>

#### REPORT ON RAISING ROMEO HIGHWAY AND CONSTRUCTING BRIDGE.

Mr. Cooley, Chairman, presented a report from the Joint Committee on

Engineering and Finance, with reference to and accompanied by a report from the Chief Engineer, with tracing, concerning the cost of raising the Romeo Highway and constructing bridge over the river diversion at that point, presented and referred to that Committee at the meeting held June 27, 1894, (page 2021 of the Proceedings) and submitting a supplemental report from the Chief Engineer and Attorney in the premises, and recommending that the said supplemental report be approved, and the Chief Engineer instructed to carry out the work, as therein set forth; and the report and supplemental report were read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report and accompanying supplemental report be adopted, ordered printed, and, with all enclosures, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report and accompanying supplemental report adopted, ordered printed, and, with all enclosures, placed on file, and the recommendations made in the report concurred in.

The following is

#### THE REPORT:

"CHICAGO, August 29, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In the matter of the river improvement and the road and highway changes at Romeo, proposed by the Chief Engineer in report of June 27, 1894, (page 2021 of the Proceedings) your Committee reports as follows:

It appears that the Highway Commissioners refuse to maintain the bridge in consideration of a new structure, and very material improvements to the highway. As long as the highway is not changed, ample flood escape is provided over the same. It does not seem expedient, therefore, to disturb existing conditions further than a certain incidental removal of glacial drift overlying the rock, for the purpose of better defining the ordinary course of the stream.

The report of the Chief Engineer and Attorney in the premises is submitted herewith and made part of this report,



with the recommendation that the glacial drift be removed, as above set forth. Your Committee recommends that said report be approved, and the Chief Engineer instructed to carry out the work as therein outlined.

As this work is properly classified under the head of glacial drift, as set forth in the original contracts for Sections 11 and 12, no further action in the premises is required.

The report of the Chief Engineer, presented June 27, 1894, with accompanying tracing, is returned herewith for filing.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*

THOMAS KELLY,  
W. H. RUSSELL,  
B. A. ECKHART,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(Accompanied by two enclosures with tracing.)

The following is

THE SUPPLEMENTAL REPORT:

"CHICAGO, August 18, 1894.

*To the Committee on Engineering and Finance:*

GENTLEMEN—In the matter of work upon the Romeo Highway, which has been under advisement, we have to report as follows:

The attitude of the Highway Commissioners of the Township of DuPage toward this work is that they will contribute nothing to its execution, nor will they maintain any bridge which may be erected by this District, giving a greater width of opening for the Desplaines River than is afforded by the present structure.

We therefore recommend that the highway be left in its present condition, and that any work done by this District be confined to the River Channel, and that no work be done on said channel at this time further than the removal of the glacial drift contemplated in the report submitted by the Chief Engineer on June 27th (page 2021 of the Proceedings) only increasing that yardage somewhat by making the channel wider to compensate for reduction in depth.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*  
GEORGE E. DAWSON,  
*Attorney."*

# REPORT ON COMPLETION OF LEVEE ON SECTION 3.

Mr. Cooley, Chairman, presented a majority report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a report from the Chief Engineer, concerning the completion of the levee on Section 3, and transmitting an agreement, in duplicate, for the same with the contractor for said Section, and recommending that the President and Clerk be authorized and directed to execute the said agreement, on behalf of the District, as provided in the majority report; and the majority report, and accompanying agreement, were read.

Mr. Cooley, seconded by Mr. Russell, moved that the majority report and accompanying agreement be adopted, ordered printed, and, with enclosure, placed on file, the recommendations made in the majority report concurred in, and the President and Clerk authorized and directed to execute the said agreement, on behalf of the District, as provided in the majority report.

Mr. Eckhart presented a minority report from the same Committee, recommending that said levee be not completed, for the reasons set forth in the minority report; and the minority report was read.

Mr. Eckhart then moved that the minority report be substituted for the majority report.

On roll-call on the substitute the vote stood: Yeas—Mr. Eckhart—one (1). Nays—Messrs. Altpeter, Cooley, Kelly, Russell and Wenter—five (5).

Upon which result the President declared the motion to substitute lost.

On roll-call on the original motion of Mr. Cooley, on the adoption of the majority report, the vote stood: Yeas—Messrs. Altpeter, Cooley, Kelly, Russell and Wenter—five (5). Nays—Mr. Eckhart—one (1).

Upon which result the President declared the motion carried, the majority report and accompanying agreement adopted, and, with minority report, ordered printed, and, with all enclosures, placed on file, the recommendations made in the majority report concurred in, and the President and Clerk authorized and directed to execute the said agreement, on behalf of the District, as provided in the majority report.



The following is

THE MAJORITY REPORT, WITH ACCOMPANYING AGREEMENT:

"CHICAGO, August 29, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On May 29, 1894, (page 1973 of the Proceedings) the question of an outer levee on Section 3, as recommended by the Chief Engineer, was referred to this Committee.

Action on the matter has been deferred, owing to inability to agree with the contractor as to a proper price on account of his not being in position to carry out this work to the best advantage.

Your Committee believe that the completion of this levee will add materially to the security against floods, and it completes the only gap in the levee system between Riverside and Romeo. It is a part of a comprehensive plan that should be carried out in full.

The amount of material is estimated at not exceeding 70,000 cubic yards and the price is fixed at seventeen (17) cents per cubic yard.

We accordingly submit herewith the draft of an agreement for this work, as prepared by the Chief Engineer and Attorney, for the adoption of the Board, and we recommend that the President and Clerk be authorized and directed to execute the same on behalf of the District.

The report of the Chief Engineer is returned herewith for filing.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.  
W. H. RUSSELL,  
THOMAS KELLY,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(Accompanied by report of Chief Engineer, and agreement in duplicate.)

AGREEMENT:

"This Agreement, Made this ..... day of ....., A. D. 1894, by and between the Sanitary District of Chicago, party of the first part, and Charles C. Gilman and Edwin McNeill, doing business under the firm name and style of

Gilman & Co., party of the second part, witnesseth:

That for and in consideration of the payment hereinafter specified to be made by first party to second party, second party hereby covenants and agrees to construct a levee on their contract section between Stations 855 and 900 as same shall be located by the Engineer of first party, said levee to be thirty (30) feet wide on top and to be built to the grade established by the Engineer and as much above said grade as shall be deemed necessary by him to allow for settlement. Said levee shall have a continuous body or core throughout, said core to be not less than eight (8) feet wide on top with side slopes of one (1) foot vertical to one and one-half (1½) feet horizontal and of such height as in the opinion of the Engineer of first party shall be necessary to render said levee when completed watertight. Said levee shall be widened out to the full required prism with broken stone or glacial drift; if widened with stone the said slopes shall be one (1) foot vertical to one and one-quarter (1¼) feet horizontal; if widened with glacial drift the slopes to be one (1) foot vertical to one and one-half (1½) feet horizontal.

Payment for said work shall be made by first party at the rate of seventeen (17) cents per cubic yard for the material placed in said levee, measurement to be in the prism of the embankment, and payment for same to be made for the net volume of the standard prism. Payment for said work shall be made upon monthly estimates returned by the Engineer of first party.

*In Witness Whereof*, on the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereunto affixed, and the said party of the second part have hereunto set their hands and seals."

The following is

THE MINORITY REPORT:

"CHICAGO, Aug. 29, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I am unable to agree with the majority of the Joint Committee on Engineering and Finance in regard to the construction of a levee between Stations 855 and 900 on Section

three (3) for which a form of agreement is submitted with their report.

Said levee is not needed for the protection of the work of the contractors as there is already an inside levee sufficient for that purpose, and under the contract the contractors are required to protect their work at their own expense by such embankments as may be necessary, nor can see that at any time such levee will be needed for protection.

Such demands are now, and in the future will be, made upon the resources of the District for work that is indispensable that I regard it as unwise to provide for the expenditure of any money upon work, the utility of which is not clearly demonstrated.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Of Joint Committee on Engineering and Finance."*

#### COMMUNICATION FROM CONTRACTORS ON SECTION D.

The Clerk presented a communication from Messrs. E. D. Smith & Co., contractors on Section D of the Main Channel, stating that they proposed to continue work on said section, and complete the same on contract time; and the communication was read.

Mr. Kelly, seconded by Mr. Altpeter, moved that the communication be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE COMMUNICATION:

"ROMEVILLE. Will Co., Ill., }  
August 14, 1894. }

*To the Board of Trustees Chicago Sanitary District, Chicago Ill.:*

GENTLEMEN—We beg to acknowledge the receipt of your order, passed by the Board on August 1st, 1894, transmitted to us through Thomas F. Judge, Clerk.

We wish to notify your Board that we propose to continue work on Section D, and expect to finish same by April, 1896; perhaps some six or eight months sooner than that time. We also wish to notify your Board that we do not consider the fact of our continuing our work is an admission on our part that we consider the ruling of your Board in this matter as just or equitable, and that we do not waive any rights for future settlement in this matter.

We have many thousands of yards of material on this section that is harder than any we have seen on the Drainage Canal, and which cannot in any sense be called "glacial drift." No machinery could be built that would handle it without the free use of powder.

If at the expiration of our contract an equitable settlement cannot be had with your Board we shall, in justice to ourselves, take such steps to protect our interests as may seem best to us.

Respectfully,

(Signed) E. D. SMITH & Co."

#### CONDITION OF WILLOW SPRINGS BRIDGE OVER DESPLAINES RIVER.

The Clerk presented a communication from John A. Shanahan, Village Clerk of the Village of Spring Forest, Illinois, with reference to the condition of the Willow Springs Bridge over the Desplaines, River; and the communication was read.

Mr. Kelly, seconded by Mr. Cooley, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

#### THE COMMUNICATION:

"WILLOW SPRINGS, August 25, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I am instructed by the Board of Trustees of the Village of Spring Forest to call attention of your Honorable Body to the fact that nothing has as yet been done toward repairing Desplaines River bridge, and to ask that some step be taken at once toward placing it in a safe condition. Many of the rods are bent and drawn out of shape, caused by the hauling of heavy machinery and the lashing of heavily loaded coal scows to bridge.

Trusting that this matter may receive your early attention, I am,

Very truly,

(Signed) JNO. A. SHANAHAN,  
*Village Clerk."*

#### DESCRIPTION AND PLAT OF CERTAIN "SANTA FE" LANDS TO BE PREPARED.

Mr. Kelly presented an order, directing the Chief Engineer and Attorney to pre-

pare a description and plat of property belonging to, or used by the Atchison, Topeka & Santa Fe Railroad Company and the Chicago, Santa Fe & California Railway Company and necessary for the District to acquire or use, as provided in the order, pursuant to a stipulation entered into with said companies on August 5, 1893, (see page 1382 of the Proceedings); and the order was read.

Mr. Kelly, seconded by Mr. Eckhart, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Chief Engineer and Attorney directed in accordance with the same.

The following is

THE ORDER:

*“Ordered,* That the Engineer and Attorney, pursuant to the stipulation entered into by this District with the Atchison, Topeka & Santa Fe Railroad Company and the Chicago, Santa Fe & California Railway Company of August 5, 1893, prepare a description and plat of the property belonging to, or used by, said companies, or either of same, which it will be necessary for the Sanitary District to acquire or use for the complete construction of the channel and other works which it is authorized to construct, and that they report same to this Board.”

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Eckhart, the Board then adjourned.

THOS F. JUDGE,  
*Clerk.*



PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

SEPTEMBER 5, 1894.

OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and thirty-seventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, September 5, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8), and subsequently Mr. Prendergast, making a total of nine (9) members, were present.

MINUTES.

By unanimous consent, action on the minutes of the regular meeting held Au-

gust 29, 1894, was deferred until the next meeting.

VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (August, 1894).....	\$ 500 00
Eng. Dept., Div. No. 1, (August, 1894).....	8,350 27
Eng. Dept., Div. No. 1, Tow-path roll (August, 1894).....	442 00
Eng. Dept., Div. No. 2, (August, 1894).....	2,351 54
Eng. Dept., Div. No. 2, Special Survey roll, (August, 1894).....	160 21
Eng. Dept., Div. No. 3, (August, 1894).....	1,734 87
Eng. Dept., Div. No. 4, (August, 1894).....	330 67
Eng. Dept., Discharged	

men's roll, (August, 1894).....	257 68	
		\$14,127 24
Clerical Dept., Clerk's roll, (August, 1894)..	891 66	
Law Dept., Attorney's roll, (August, 1894)..	\$ 1,156 67	
Law Dept., Joliet roll, (August, 1894).....	458 33	
		\$ 1,615 00
Treasury Dept., Treasurer's roll, (August, 1894).....	166 67	
General Account, General roll, (August, '94)	\$ 235 00	
General Account, Trustees' roll, (August, 1894).....	2,333 33	
		\$ 2,568 33
Police Dept., Marshal's roll, (August, 1894).....		\$ 3,566 65
Total.....		\$22,935 55

## ENGINEERING DEPARTMENT.

*Construction Account—*

Griffiths & McDermott (Sec. 1, Sept. 1, 1894).	\$12,832 29
McArthur Bros. (Sec. 2, Sept. 1, 1894).....	12,140 63
Gilman & Co. (Sec. 3, Sept. 1, 1894).....	14,409 57
McArthur Bros. (Sec. 4, Sept. 1, 1894).....	10,354 31
The Qualey Construction Co. (Sec. 5, Sept. 1, 1894).....	9,975 00
Mason, Hoge & Co. (Sec. 6, Sept. 1, 1894).	3,638 25
Mason, Hoge & Co. (Sec. 7, Sept. 1, 1894).	15,698 81
Mason, Hoge, King & Co. (Sec. 8, Sept. 1, 1894).....	19,479 69
Halvorson, Richards & Co. (Sec. 9, Sept. 1, 1894).....	33,131 09
E. D. Smith & Co. (Sec. 10, Sept. 1, 1894).....	28,420 00
Mason, Hoge & Co. (Sec. 11, Sept. 1, 1894).	14,284 81
Mason, Hoge & Co. (Sec. 12, Sept. 1, 1894).	8,876 00
Mason, Hoge & Co. (Sec. 13, Sept. 1, 1894).	16,089 94
Smith & Eastman (Sec. 14, Sept. 1, 1894).....	15,057 87
Heldmaier & Neu (Sec. A, Sept. 1, 1894).....	9,699 40
Western Dredging & Improvement Co. (Sec. C, Sept. 1, 1894).	9,462 04
E. D. Smith & Co. (Sec. D, Sept. 1, 1894).....	17,151 59
Ricker, Lee & Co. (Sec. F, Sept. 1, 1894).....	5,923 70
Gahan & Byrne (Sec. G, Sept. 1, 1894).....	12,851 23
Gahan & Byrne, (Sec. H, Sept. 1, 1894).....	6,835 26
Christie & Lowe (Sec. I, Sept. 1, 1894).....	12,827 50

Christie & Lowe, (Sec. K, Sept. 1, 1894).....	8,043 44
The Heidenreich Co. (Sec. L, Sept. 1, 1894)..	5,757 32
The Heidenreich Co. (Sec. M, Sept. 1, 1894).	2,853 82
Hayes Bros., et al., (Sec. N, Sept. 1, 1894)	3,713 06
McMahon & Montgomery Co., et al., (Sec. O, Sept. 1, 1894).	8,654 62
The Qualey Construction Co. (Sec. 5, spoil removed from existing banks and riprap work, Sept. 1, 1894)...	210 00
Mason, Hoge & Co. (Sec. 6, extra special work, retaining embankment, Sept. 1, 1894).....	1,755 00
Mason, Hoge & Co., (Sec. 7, dimension stone, Sept. 1, 1894)...	700 00
Heldmaier & Neu (Sec. A, (extra work, completing levee, Stations 692 to 710, Sept. 1, 1894)	583 20
	\$321,409 44

## ENGINEERING DEPARTMENT.

P. F. Pettibone & Co. (stationery).....	\$ 4 50
Barnard & Gunthorp, (printing specifications).....	357 00
Chicago Blue Print Paper Co., (paper).....	2 28
Rand, McNally & Co. (maps).....	16 75
Seellig & Kandler, (repairing instruments)	5 10
Marshall Field & Co., (window shades)....	22 98
Marshall Field & Co., (linoleum).....	2 40
Carson, Pirie, Scott & Co., (signal cloth)....	5 60
Henry Gebhardt, (vault fittings).....	7 00
Geneva Optical Co., (photographic supplies).....	29 50
John McCaffery, (rent, Brighton Park, Aug., 1894).....	25 00
John T. Allison, (rent, Summit, Aug., 1894)..	20 00
J. M. Abbitt (rent, Willow Springs, August, 1894).....	20 00
H. S. Norton, (rent, Lemont, Aug., 1894)	18 00
O. W. Moon (rent, Lockport, Aug., 1894)	20 00
Geo. Brainard, (gauge reading, July, 1894)...	10 00
E. Hastings, (gauge reading, July, 1894)...	10 00
Wm. Kirkham, (gauge reading, July, 1894)...	10 00
Patrick McGinnis, (gauge reading, July, 1894).....	10 00

Mary Rusk, (gauge reading, July, 1894) ..	10 00	
Waukesha Hygeia Mineral Springs Co. (water) .....	7 50	
C. S. Austin, (ice) .....	9 00	
J. H. Spengler, (expense) .....	5 75	
J. H. Spengler, (expense) .....	6 73	
U. W. Weston, (traveling) .....	29 55	
D. C. Dunlap (traveling) .....	42 80	
Thos. T. Johnston (traveling) .....	34 07	
Edgar Williams, (traveling) .....	17 26	
F. G. Ewald, (traveling) .....	29 42	
Hiram A. Miller, (traveling) .....	22 53	
Alex. E. Kastl (traveling) .....	22 43	
A. C. Schrader, (traveling) .....	22 34	
J. H. Spengler (traveling) .....	10 59	
F. G. Ewald, (emergency) .....	25 74	
F. G. Ewald, (emergency) .....	16 71	
		\$ 908 53

## CLERICAL DEPARTMENT.

Warner's Towel Supply, (toweling) .....	\$ 1 50	
C. S. Austin, (ice) .....	3 00	
		\$ 4 50

## LAW DEPARTMENT.

Orrin N. Carter, (legal services) .....	\$ 151 67	
Jos. Donnersberger, (expert, right of way services, Aug, 1894) ..	300 00	
Barnard & Gunthorp, (printing) .....	36 00	
Warner's Towel Supply (toweling) .....	1 50	
Thos. Burke, (livery) ..	16 00	
C. S. Austin, (ice) .....	3 00	
Geo. E. Dawson, (expense) .....	13 50	
Geo. E. Dawson, (expense) .....	118 68	
		\$ 640 35

## LAW DEPARTMENT.

<i>Land Account—</i>		
Title Guarantee and Trust Co., (opinions of title) .....		\$ 8,855 00

## GENERAL ACCOUNT.

Lord & Thomas, (advertising bonds, 5 per cent) .....	\$ 310 00	
Lord & Thomas, (advertising bonds) .....	525 00	

<i>The Chicago Times,</i> (legal advertising, Sec. 15) .....	307 20	
<i>The Engineering News Publishing Co.,</i> (advertising Sec. 15) ..	129 60	
<i>The Engineering Record,</i> (advertising Sec. 15) .....	60 00	
<i>The Railway Review,</i> (advertising Sec. 15) .....	114 24	
<i>The Railroad Gazette,</i> (advertising Sec. 15) ..	60 00	
Western Bank Note & Engraving Co., (engraving bonds) .....	1,255 00	
		\$2,761 04

## POLICE DEPARTMENT.

The Aermotor Co. (aermotor) .....	\$ 168 74	
Brighton Park Builders' Supply Co. (sash and frames) .....	13 60	
Wm. Middleton, (gun racks) .....	13 50	
Mrs. Fitzgerald, (board of special officers) ..	10 50	
		\$ 206 34
Grand total .....		\$357,720 75

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisition:

No. 510, Engineering Department, (furniture and stationery) .....

Mr. Boldenweck, seconded by Mr. Cooley, moved that Requisition No. 510, for the Engineering Department, as read and shown above, be referred to the Committee on Engineering.

The motion prevailed unanimously, and Requisition No. 510, for the Engineering Department, as read and shown above, was so referred.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the



number of persons in the employ of the District for the week ending September 1 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, September 5, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending September 1, 1894, as the same have been reported to me:

Engineering Department.....	(No report)
Clerical Department.....	4
Law Department.....	7
Treasury Department.....	1
Police Department.....	46
Total employes.....	58

Up to this writing no report has been received from the Engineering Department as to the force employed therein.

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

#### FINAL REPORT ON COMPLETION OF SALE AND DELIVERY OF \$3,000,000 OF BONDS—THIRD ISSUE.

The Clerk presented a report, accompanied by eight (8) enclosures, with reference to the completion of the sale and delivery of \$3,000,000 of bonds of the District, being the third issue, sold on August 17, 1894, and with reference to the return of the checks deposited on August 15, 1894, with the bids for said bonds; and the report was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the report be ordered printed, and, with enclosures, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

"CHICAGO, Sept. 5, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—With reference to the sale to MESSRS. N. W. Harris & Co. of the three million (\$3,000,000) dollars

of five per cent bonds of the District, being the third issue, and the amount deposited by said firm with their bid, \$90,000, I have to report that on notice from the Treasurer of the payment for and delivery of all said issue, I returned to the said N. W. Harris & Co. the entire amount of the deposit made with their bid for said bonds.

I have also returned to Messrs. Eric J. Nelson, Lee, Higginson & Co., First National Bank of Chicago, Blair & Co., A. O. Slaughter & Co. and P. C. Peterson, the checks deposited by each of said firms on August 15, 1894, with their bids for said issue of bonds, and their receipts for said checks are hereto attached.

The Treasurer has notified me that the total third issue of 3,000 bonds, Nos. 5001 to 8000 inclusive, were paid for and delivered to said firm on August 30, 1894, which said notice is hereto attached.

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

(Eight (8) enclosures.)

#### ADDITIONAL ROOM FOR ENGINEERING DEPARTMENT.

The Clerk presented a report from the Chief Engineer, making requisition for additional room for the use of Division 2 of the Engineering Department; and the report was read.

Mr. Cooley, seconded by Mr. Altpeter, moved that the report be ordered printed and referred to the Committee on Rules.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

#### THE REPORT:

"CHICAGO, Sept. 5, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The amount of work now assigned to Division No. 2 of the Engineering Department involves the employment of a force for which no adequate quarters have been provided. One of the rooms heretofore used by this Division has been necessarily taken for the photographic work authorized by you, which is being systematically carried on. The cement tests are also being made in this Division and the space, already too limited, is so crowded as to hinder the work which is needed and must be done.

In view of these facts I respectfully ask for another room for the use of the Second Division.

Yours truly,

(Signed)

ISHAM RANDOLPH,

*Chief Engineer."*

# MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of August, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT :

"Balance on hand at date of last report..... \$1,025,684.65

Received from Thos. F. Judge, Clerk, for Law Department, Land Account, (Miriam Wilson, Warrant No. 5877 returned).....\$ 6,787.50

Received from County Treasurer, tax account (1893)..... 100,000.00

Received from N. W. Harris & Co., for 3000 Sanitary Dist. Bonds.. 3,000,000.00

Received from N. W. Harris & Co., premium on above bonds..... 17,121.00

Received from N. W. Harris & Co., accrued interest on above bonds 11,918.00

Received from Ft. Dearborn National Bank, interest for August... 255.33

Received from Metropolitan National Bank, interest for August... 310.83

Received from National Bank of Illinois, interest for August... 272.35

Received from Chicago National Bank, interest for August..... 289.78

Received from American Trust and Savings Bank, interest for August..... 35.66

Received from Globe National Bank, interest for August. .... 358.90  
\$3,137,349.35

Total cash received for month..... \$4,163,034.00

Total cash disbursed during month as per annexed schedules, viz:

Clerical Department.... \$ 942.01

Treasury Department.. 166.66

Engineering Departm't.	15,117.50
Engineering—Construction—Department.....	559,428.67
Law Department.....	2,716.86
Law Department—Land Account.....	51,354.32
General Account.....	6,440.06
Police Department.....	6,207.19
	<hr/> \$642,373.27

Balance this date, in banks as per schedule endorsed hereon .....	<hr/> \$3,520,660.73
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(Signed) MELVILLE E. STONE,  
*Treasurer.*

CHICAGO, Sept. 1, 1894."

## SCHEDULE :

Fort Dearborn National Bank.....	\$676,122.08
National Bank of Illinois.....	681,962.61
Chicago National Bank.....	650,638.08
Metropolitan National Bank.....	703,859.95
American Trust and Savings Bank.	21,003.79
Globe National Bank.....	787,074.22

Total.....	<hr/> \$3,520,660.73
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## APPROVAL OF BOND ON CONTRACT FOR SECTION 15.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, recommending that the bond given by Messrs. Wright, Meysenburg, Sinclair & Carry, Contractors on Section 15 of the Main Channel, be approved, and that the President and Clerk be authorized and directed to execute the contract with said firm on said Secion, on behalf of the District, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

The following is

## THE REPORT:

"CHICAGO, Sept. 5, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Finance have examined the bond presented

by Messrs. Wright, Meysenburg, Sinclair & Carry, Contractors for the work on Section 15 of the Main Channel. They have given the Fidelity & Deposit Co. of Maryland as surety.

The said bond is satisfactory to your Committee, and we recommend that the President and Clerk be authorized and directed to execute the said contract, on behalf of the District, in accordance with the report of the Joint Committee on Engineering and Finance, presented at the meeting held August 29, 1894, (page 2134 of the Proceedings.)

Respectfully submitted,

(Signed)

B. A. ECKHART,  
*Chairman.*

W. H. RUSSELL,  
THOMAS KELLY,  
*Committee on Finance."*

#### CLOSING OF OFFICES ON "LABOR DAY."

The President announced that he had ordered the offices of the District closed on Monday, September 3, 1894, the same being "Labor Day," and requested that his action with reference to the same be approved.

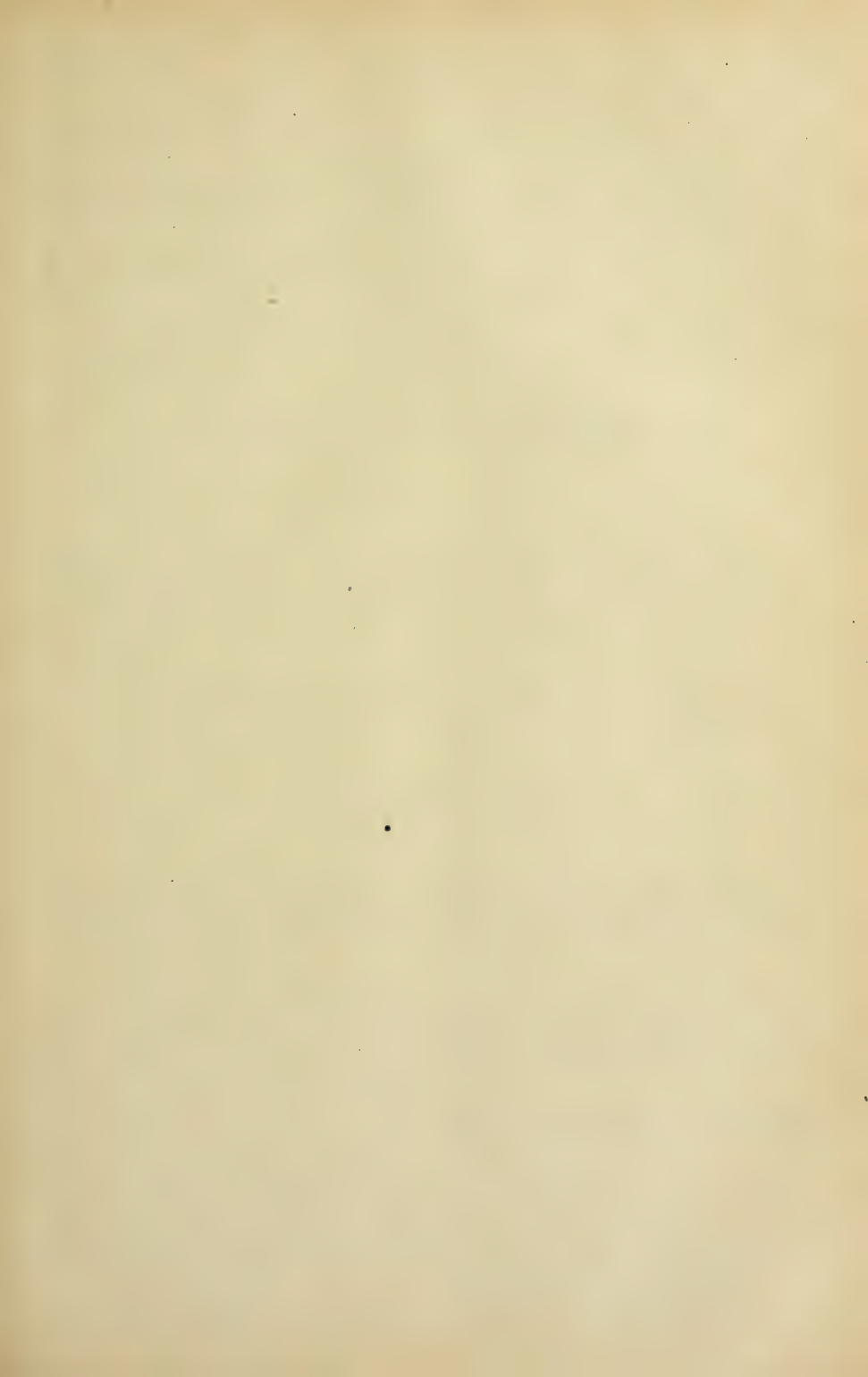
By unanimous consent, the action of the President in the premises was approved.

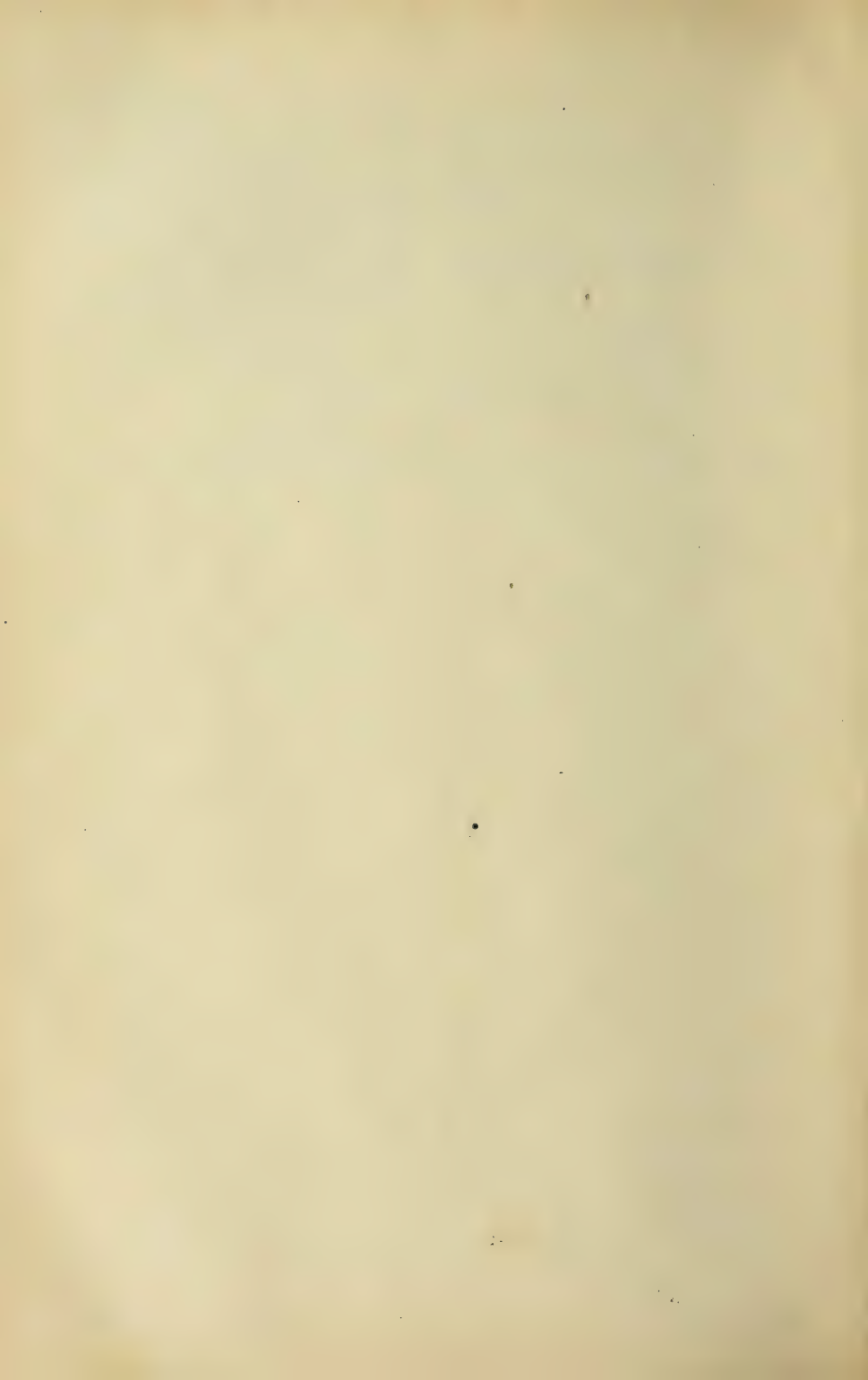
#### ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk,*







# PROCEEDINGS

—OF THE—

# BOARD OF TRUSTEES

—OF THE—

# SANITARY DISTRICT OF CHICAGO.

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SEPTEMBER 12, 1894.

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## OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

## REGULAR MEETING.

The two hundred and thirty-eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, September 12, 1894, at 1:30 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6), and subsequently Messrs. Alt-peter and Gilmore, making a total of eight (8) members, were present

## MINUTES.

By unanimous consent, action on the minutes of the regular meetings held

August 29 and September 5, 1894, was deferred until the next meeting, on motion of Mr. Boldenweck, seconded by Mr. Cooley.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending September 8, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, September 12, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report here-with the number of employes in each



department for the week ending September 8, 1894, as the same have been reported to me:

Engineering Department.....	134
Clerical Department.....	4
Law Department.....	7
Treasury Department.....	1
Police Department.....	46

Total employes..... 192

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

#### MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of August, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Sept. 12, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to herewith report that the total amount expended on account of and charged to the Clerical Department during the month of August 1894, was \$942.01, divided as follows:

Salaries.....	\$891 66
Printing and stationery.....	22 10
General expenses.....	28 25
Total.....	<u>\$942 01</u>

There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$950.

The total amount expended and charged to the General Account during the month of August, 1894, was \$6,404.06, divided as follows:

Salaries.....	\$ 2,552 00
Rents.....	2,050 00
Engraving and printing bonds...	1,255 00
Printing and stationery.....	272 30
Advertising.....	195 03
General expenses.....	79 73
Total.....	<u>\$6,404 06</u>

There are outstanding liabilities against the General Account to the amount of about \$1,000.00, for advertising, and the

expenses for the present month will be about \$6,500.

During the month of August, 1894, there were warrants authorized and drawn for \$616,353.73 against the various accounts as follows:

Engineering Department.....	\$ 14,938 90
Clerical Department.....	942 01
Law Department.....	2,702 14
Treasury Department.....	166 66
General Account.....	6,404 06
Engineering Department (Construction Account).....	550,482 77
Law Department (Land Accou't)	34,753 99
Police Department.....	5,963 20

Total.....\$616 353 73

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

#### MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of August, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Sept. 9, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith the monthly report for August, 1894. The total amount paid out by this Department during the month is as follows:

#### Salaries.

Attorneys.....	\$1,299 99
Office force.....	320 00
	<u>\$1,619 99</u>

#### General Expenses.

Court costs.....	\$222 45
Right of way.....	442 15
Expense account.....	61 55
Legal services.....	356 00
	<u>\$1,082 15</u>

#### Land Account.

Right of way (for which deeds have passed)...	\$37,021 32
Taxes, Cook County....	732 67
	<u>\$37,753 99</u>
Total.....	<u>\$40,456 13</u>

The final order of judgment upon the finding of Judge Gibbons for the tract known as the Cook-Ketcham land was entered and the acquisition of said tract by the District completed.

The contracts for the work on Section fifteen (15) of the Main Channel were prepared under the supervision of this Department and the same duly executed.

Much time has been given to the consideration of matters connected with Section E, to the supervising of the advertisement for proposals for completing the work on said section and also to preparing a form of agreement to be entered into for same.

During the coming month questions arising in connection with railroad crossings together with routine work will claim the attention of the Department.

Respectfully submitted,

(Signed) GEO. E. DAWSON,  
*Attorney."*

#### ANNUAL REPORT FROM ENGINEERING DEPARTMENT FOR 1893.

The Clerk presented a report from the Chief Engineer, transmitting the Annual Report of the Engineering Department for the year ending December 31, 1893.

The report was read, and, by unanimous consent, with accompanying Annual Report, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Sept. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith my report for the seven months ending December 31st, 1893. This report was prepared, almost to completion in January last, but was pushed aside by the pressing nature of the work in hand.

Under the spur of a reminder from President Wenter I now present it and ask your clemency for my long delay.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

—  
"CHICAGO, Jan. 23, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit the following re-

port of the work of the Engineering Department for the seven months ending December 31st, 1893. This being the period during which I have been in charge of the said work, less one week, my election by your Honorable Board having taken place June 7th, (see page 1263 of Proceedings).

Certain changes in the organization of the Department having been determined upon prior to my taking office, it devolved upon me in accordance with the policy so determined to nominate one First Assistant Chief Engineer, one Second Assistant Chief Engineer, one Superintendent of Construction and one Assistant Superintendent of Construction. For these positions I nominated the present incumbents, Mr. T. T. Johnston, First Assistant Chief Engineer; Edgar Williams, Second Assistant Chief Engineer; Mr. U. W. Weston, Superintendent of Construction and Mr. D. C. Dunlap, Assistant Superintendent of Construction, and these nominations were duly confirmed by you on June 14th (page 1276). At the time of my accession to office the work on most of the sections west of Willow Springs was disorganized, not to say paralyzed, by the lawless acts of striking laborers from work not controlled by the District. In encounters with the employes of the contractors, who were acting in self defense, many of the strikers lost their lives or received serious bodily injury. The aid of the State was invoked and a considerable body of the National Guard was sent to the scene of the disturbance; peace was restored and no outbreak has since occurred.

#### *River Diversion, Sections 6 and 7—*

The first recommendation for any change in the plans for the work as they came to my hands related to River Diversion on Sections 6 and 7, and involved an extension eastward of the alignment as established west of the west line of Section 21 in Cook County, until the same should intersect the old river channel in Section 15 of DuPage County, (June 16th, page 1286) which change was ordered by you on July 5th and embodied in a supplemental contract entered into between this District and Agnew & Co. (page 1317, text of contract page 1335).

#### *McArthur's Sections, Hard Material—*

The first question involving construction of contract upon which I was called to



pass was the petition of McArthur Bros. for solid rock classification on hard material found in their Contract Sections Nos. 2, 3 and 4, (May 31st, page 1253) termed by them "certain conglomerate rock" (June 12, page 1280). On June 21st (page 1295) you referred this question to me for decision. On June 26th (page 1300) I reported my decision in the following language: "The terms of the contract defining glacial drift are not geologically correct, but the definition therein set forth is arbitrary and was adopted by the Sanitary District and accepted by the contractor as a basis for estimating the material overlying the solid rock for the purposes of settlement. That the material encountered is very tough and difficult to handle cannot be denied, but that the last clause of the arbitrary definition of glacial drift, namely, 'any other material that overlies the bed rock' covers and includes it fully, is, to my mind perfectly evident." This decision was accepted as final by you July 12th (page 1327), but McArthur Bros. would not proceed under it, and consequently on August 2d, they were served with formal notice to discontinue work (pages 1366-67), which, in fact, they had practically done early in June. On August 5th the McArthur Sections were re advertised. On October 4th the bids for re letting Sections 2, 3 and 4 were opened and canvassed. The final outcome of this re-letting was that McArthur Bros. secured Sections 2 and 4 on a compromise proposal under which they accepted my interpretation of the meaning of the classification, as contained in the contract and set forth in my decision (see Oct. 18th, page 1521 and Oct. 25th, pages 1529-30), and that Section No. 3 was awarded to C. C. Gilman and Edwin McNeil (page 1530.)

Upon the basis of readjustment, McArthur Bros. received on Sections 2 and 4 and C. C. Gilman and Edwin McNeil on Section 3 the following prices:

	<i>Glacial Drift.</i>	<i>Solid Rock.</i>	<i>Retaining Walls.</i>
Section 2....	50 cents.	80 cents.	\$1 74
Section 3....	56 cents.	76 cents.	1.80
Section 4....	49 cents.	80 cents.	1.87

Taking the material in place on each of the sections in question as shown in the estimates of October 6th (page 1499) and making comparison on the basis of the original contract prices for the several grades of work with the cost of the same

under the new scale of prices, shows that the increased cost to the District on Sections 2 and 4 was \$292,713.29, and the diminished cost on Section 3 was \$3,478.26. The total increased cost of the readjustment would therefore be \$289,235.03.

#### *Chicago River—*

During the month of June the Chicago River was in a condition more than usually repulsive and unsanitary, and statements were made in the public prints and elsewhere, which, had they been true, would have fastened the blame of such condition upon this District. To show that there were no grounds for such charges, I had the facts collected and submitted to your Honorable Board in the form of reports accompanied by tables showing flood heights and flood volumes on the several branches of the Chicago River; the work done during given periods by the Bridgeport Pumping Works and other valuable data which showed conclusively that no blame could properly attach to this District (see pages 1304 to 1307, 1308 and 1309).

#### *Agnew Sections, Delinquent—*

The delinquencies on Sections 5, 6, 7 and 9 were first brought to your notice July 19th (page 1337), and many subsequent reports from me and the Superintendent of Construction showed that the work on these sections was steadily falling behind contract requirements. (See July 26th, page 1349; August 2d, page 1359; August 9th, page 1389; August 23d, page 1410; September 6th, page 1437; December 20th, pages 1630-32; December 27th, pages 1647-48). The force of these facts brought about the notice of forfeiture of the sections under consideration which issued from your Honorable Board on December 27th, (page 1650).

#### *Change of Grade in Main Channel—*

On August 2d (page 1360), I submitted a recommendation for change of grade of Main Channel between Bridgeport and Station 1480 (end of Contract Section 14), and accompanying my recommendation were the calculations and other data prepared by Mr. T. T. Johnston, First Assistant Chief Engineer, for my use in reaching the conclusions stated. This recommendation was finally acted upon September 6th (pages 1438-9), after having been duly considered by the Committee on Engineering and somewhat amended. As thus amended



it passed your Honorable Body, and the grade through the earth sections was fixed at 1 in 40,000, and through the rock sections at 1 in 20,000, the future depth of water to be 22 feet.

#### *Dry Rubble Walls—*

On August 2d (page 1361) I made a report calling attention to the inadequacy of dry rubble retaining walls for this work, and suggested rubble walls laid in cement.

#### *Goose Lake Improvement—*

On August 2d I submitted a recommendation accompanied by an estimate of cost for draining Goose Lake (page 1365). This work was ordered done under the provisions of the contract governing extra work by Mason, Hoge & Co. It was commenced August 17th and completed September 25th.

#### *Change of Grade, River Diversion—*

My recommendation of August 2nd (page 1359) that the grade of River Diversion Channel on Sections E and F be raised (as thereby a considerable saving in cost could be effected without impairing the usefulness of the channel) was adopted by you and ordered August 16th (pages 1401-2).

#### *Santa Fe R. R., Change of Location—*

On August 4th (see pages 1382-83) an agreement between the Chicago, Santa Fe & California Railway et al. and this District was authorized by you. This agreement provided for the change of location of the said railway at its crossing of the River Diversion Channel near Lemont, the cost of the new construction to be borne by the District.

#### *Visiting Engineers—*

On Monday, August 7th, through your hospitality and the courtesy of the officials of the Atchison, Topeka & Santa Fe R. R., who placed a train at our service for that purpose, several hundred civil engineers, gathered here from all lands by the attractions of the Worlds' Fair and the International Congress of Engineers, made an inspection of the work then in progress on River Diversion and Main Channel. The magnitude and importance of the enterprise greatly impressed these veterans in the work of planning and constructing monuments to the world's progress, whose usefulness will long outlive the memory of the men who built them.

#### *Special Construction Ordered—*

On August 16th you ordered the following work: 1st—The reconstruction of the railroad embankment, track and bridge of the Western Stone Company in Will County by E. D. Smith & Co., under the terms of their contract governing extra work (see page 1402 of Proceedings). 2d—The construction of the Stephens street bridge and approaches (page 1402). 3d—The construction of the Santa Fe bridge and approaches (page 1402). The second and third items of this order were constructed by E. D. Smith & Co. as agents of the District, at cost, with 10 per cent. added for superintendence and use of tools, under your order of September 27th (page 1469).

#### *Levee Grades—*

On August 16th (page 1404) you passed an order establishing levee grades on River Diversion, fixing the elevation at 24 feet above datum at the Santa Fe bridge and sloping thence uniformly to the Willow Springs road, where the elevation was fixed at 20 feet above datum. And further fixing the top of levee at the Western Stone Company's track near the Will County line at 11 feet above the grade of the River Diversion at the same place, and sloping uniformly thence to an elevation 8 feet above datum at the Romeo road.

#### *Emergency Work on River Diversion—*

On August 30th the order passed your Board for what has been designated "Emergency work on Sections 1, 2 and 4," (page 1427). The emergency was twofold. The work upon the River Diversion on the sections named accomplished prior to this date, amounted to nothing. The completion of the River Diversion as an entirety, was recognized as a condition precedent to the ability to construct the Main Channel, should a wet season prevail. The contractor for Section No. 1 recognizing his inability to excavate the character of the material encountered upon this portion of the Diversion, at his contract prices, without a pecuniary loss which he was unable to sustain, laid down. On Sections 2 and 4 the contractor had received formal notice from the District to quit, and the work was re-advertised. In Chicago thousands of men were clamoring for work and the public turned to this District for relief. The situation just described upon the three

sections named offered a field of operations for the unemployed. Necessity for action joined with the pleadings of humanity in bringing about the arrangement under which the emergency work of the District was accomplished by men of Chicago who left the ranks of the unemployed and took up pick and shovel. This work was carried out by Contractor Alfred Harley on Section 1, and by McArthur Bros. on Sections 2 and 4 (also on the east portion of 5) under an agreement which constituted the said contractors agents of the District, they agreeing to supply all necessary tools and equipment for the work and to supervise and direct the same. The compensation to said contractors for such service to be 15 per cent on the cost of the work (see pages 1427, 1430). This work proved to be very expensive and may be regarded as an object lesson clearly demonstrating, from an economic standpoint the unwisdom of entering into any arrangement for carrying on the construction work of the District by the direct employment of labor.

#### *Spillway at Summit—*

Borings for determining the depth and character of stable foundations for such a structure were ordered by you September 20th (page 1463 of Proceedings). On October 18th (page 1517) I submitted plans, specifications and estimates for this structure. On October 25th (page 1528) you authorized the construction of the Spillway and instructed the President, the Chief Engineer and the Clerk to arrange for the construction thereof. Bids were received from several responsible contractors, and the proposition of McArthur Brothers Company being the most favorable was accepted, and this work, which is practically a concrete dam, faced with Portland cement, capped with stone flagging and flanked with masonry, was pushed as rapidly as possible and the full volume of concrete was in place and the stone work completed before freezing weather stopped further operations. The Portland cement finish could not be applied and there remains therefore quite an amount of work to be done in the Spring of 1894. The agreement with McArthur Brothers Company for this work, under date of Nov. 1st, appears in the Proceedings for Dec. 13th, (page 1615).

*Sections G, H, I, K, L, and M, between*

#### *Range Line East of Summit and Corwith—*

On Sept. 27th (pages 1471-82 of Proceedings) I submitted specifications covering this work, which were formally adopted by you. On Nov. 29th the bids for this work were opened and canvassed (page 1589), and the Sections were awarded to the following contractors at the prices named:

*Per Cubic Yard.*

Section G, Gahan & Byrne.....	28 cents.
Section H, Gahan & Byrne.....	29 cents.
Section I, Christie & Lowe.....	25 cents.
Section K, Christie & Lowe.....	25 cents.
Section L, The Heidenreich Co. 19 7 10 cents.	
Section M, The Heidenreich Co. 20 7 10 cents.	

See Proceedings, Dec. 23d, page 1641.

#### *Section No. 14—*

On Nov. 15th (page 1575) I reported the suspension of work on this Section by the McCormick Construction Company, and the seizure of the effects of said Company by the sheriff. On the same day you issued a notice of intention to forfeit the contract of the said McCormick Construction Company (page 1577.) P. J. Sexton was appointed Receiver of this Section by Judge Grosscup of the United States Circuit Court (see letter of Dec. 11th from P. J. Sexton, page 1616), but nothing was done in the way of a final settlement before the end of the year.

#### *Future Work—*

Of the work yet to be done, two Sections at the Chicago end await advertisement for contract, and at the Lockport end work of considerable magnitude has to be undertaken. The Chicago sections (N and O) are entirely in earth as indicated by our borings and test pits, and the work of excavation is not likely to develop such difficulties as have been met with on the sections west of Summit Range Line. The most serious questions of construction on this portion of the line are those relative to the disposition of railroads and streets. These present problems which will require the most careful consideration and the weighing of many alternative methods of reaching the desired results in the scales of sound policy for the future, adjusted to the financial ability of the present.

The unsolved problems at the southerly end have given you much anxious thought before my connection with this great work and we are still confronted with the questions involved in proper controlling



works and such disposition of the combined outflow from this channel and the flood waters of the Desplaines as will meet our immediate needs, within our recognized financial ability, and still not compromise or limit the inevitable demands of the future for an extended navigable channel and the utilization for manufacturing purposes of the vast water power which the construction of this channel provides, but which must run to waste until such time as the needful money can be secured to harness and control its mighty energies and make them turn the wheels of industry.

#### *Engineering Department—*

For the force enrolled in this department I do not feel that the work accomplished is what it should be. There are influences affecting the organization which must be removed before thorough efficiency can be obtained. Engineers in charge of divisions should be competent from a professional standpoint, responsible morally, industrious and efficient; and possessing these qualifications, should have absolute control of the working forces under them. They should be held responsible for the discipline and efficiency of their subordinates, and should have power to discharge any subordinate for inefficiency, disobedience of orders, or any other breach of discipline. Every man should understand that his only claim upon this District rests upon his personal efficiency and fidelity, and that, failing in these requisites, no influence could or would be exerted to help keep him upon the rolls of the department. The pay of the several grades of employes is better than the wages paid by railways or other corporations, or private parties,

for like services; and while it is none too much for willing and efficient service, if paid for work which is grudgingly and unfaithfully performed, it is a wrong done to this District and an encouragement to the spirit of indolence and insubordination. I know that you all unite with me in my desire to have this corps stand upon the highest plane of character, skill and efficiency, that it may be an honor and a source of strength to this District, and I ask your co-operation in every effort of mine to bring about these results.

I append hereto a tabulation of the cost of the operations of the Engineering Department including all construction accounts, exclusive of reserved percentages for the year 1893 as shown upon the books of the Record Division from which these tables have been compiled by Mr. Robert H. Cowdrey, Record Clerk. This record covers all vouchers approved by the Chief Engineer, which are recorded before being transmitted to the Clerk for auditing.

*Table No. 1* is an exhibit of the cost as shown by vouchers on file for each month in consecutive order.

*Table No. 2* is a recapitulation showing totals charged to each account for the year 1893 under the sundry orders of the Board.

*Table No. 3* is a balance sheet showing balance between vouchers signed by the Chief Engineer and the total distribution for 1893.

*Table No. 4* is a balance sheet showing balance between the accounts of the Clerical and Engineering Departments for 1893.

*Table No. 5*, total cost of the Engineering and Construction work up to December 31st, 1893.

#### ENGINEERING DEPARTMENT—TABLE NO. 1.

JANUARY, 1893.

	Dr.	Cr.
To cash.....	\$60,440 61	
By Chicago River surveys.....		\$ 158 23
Borings, Summit to Willow Springs.....		543 94
Flood measurements.....		171 75
Construction expense.....		5,333 66
Payments to contractors on estimates.....		46,300 06
Measuring Illinois River floods.....		203 29
Plans and specifications, Summit to Willow Springs.....		47 60
Diversion North Branch of Chicago River....		940 20
Maps for use of the Trustees.....		40 16
Office building at Sag Station.....		1,318 16
Plans and specifications, Summit to Ashland av.		65 30



Survey street lines adjacent to Chicago River..	\$ 1,456 80	
Maps and plans.....	385 92	
Maps for State Board of Health.....	238 30	
Right of way.....	879 12	
General account.....	2 358 12	
Total for the month of January.....	<u>\$60,440 61</u>	<u>\$60,440 61</u>

## FEBRUARY, 1893.

To cash .....	\$49 642 21	
By Chicago River survey.....	\$ 211 94	
Borings, Summit to Willow Springs.....	391 31	
Flood measurements.....	32 00	
Construction expense.....	4,741 73	
Payments to contractors on estimates.....	33,405 14	
Measuring Illinois River floods.....	168 00	
Diversion North Branch of Chicago River.....	379 61	
Control of floods in Desplaines River.....	7 00	
Office building at Sag Station.....	221 55	
Plans and specifications, Summit to Ashland av.	71 74	
Readvertising work on Sections A, B and C...	1 00	
Survey of street lines adjacent to Chicago River	1,179 63	
Maps and plans.....	450 13	
Disposal of flood waters at Joliet.....	198 38	
Maps for State Board of Health.....	10 50	
Flood measurements of Chicago and Desplaines Rivers.....	27 50	
Extent of floods in Desplaines River Valley...	6 00	
Right of way.....	711 78	
General account.....	2,427 27	
Total for the month of February.....	<u>\$49 642 21</u>	<u>\$49,642 21</u>

## MARCH, 1893.

To cash .....	\$ 43,533 96	
By Chicago River survey.....	\$ 237,56	
Borings between Summit and Willow Springs.	13 75	
Flood measurements.....	139 83	
Construction expenses.....	5,158 51	
Contractors' estimates.....	32,095 47	
Measurement Illinois River floods.....	98 00	
Diversion North Branch of Chicago River.....	14 06	
Control of floods in Desplaines River.....	22 25	
Office Building at Sag Station.....	90 15	
Plans and specifications, Summit to Ashland av.	5 75	
Survey of street lines adjacent Chicago River.	1,184 25	
Maps and plans.....	557 75	
Topographical maps.....	90 00	
Disposal of flood waters at Joliet.....	117 75	
Foot bridge at Mt. Forest.....	32 17	
Flood measurement of Desplaines and Chicago Rivers.....	814 64	
Extent of floods in Desplaines River Valley...	109 00	
Official set of plans entire work.....	7 00	
Right of way.....	701 93	
General account.....	2,044 14	
Total for the month of March.....	<u>\$43 533 96</u>	<u>\$43,533 96</u>

## APRIL, 1893.

To cash.....	\$54,059 65	
By Chicago River survey.....		\$ 152 32
Locating route between Willow Springs and Joliet.....		24 00
Borings between Summit and Willow Springs.....		12 78
Flood measurements.....		8 21
Construction expenses.....		5,597 87
Payments to contractors on estimates.....	42,952 31	
Measurements Illinois River floods.....		61 00
Diversion North Branch Chicago River.....		130 55
Control of floods in Desplaines River.....		33 00
Office building at Sag Station.....		56 70
Survey of street lines adjacent Chicago River..		1,544 84
Maps and plans.....		365 22
Topographical map.....		597 74
Disposal of flood waters at Joliet.....		383 36
Flood measurement of Desplaines and Chicago Rivers.....		35 25
Extent of floods in Desplaines River Valley...		6 17
Right of way.....		650 37
General account.....		1,447 96
Total for the month of April.....	\$54,059 65	\$54,059 65

## MAY, 1893.

To cash.....	\$73,154 24	
By Chicago River survey.....		\$ 76 38
Locating route between Willow Springs and Joliet.....		120 00
Construction expenses.....		6,409 23
Payments to contractors on estimates.....	61,896 29	
Measurement Illinois River floods.....		35 81
Diversion North Branch Chicago River.....		158 55
Office building at Sag Station.....		4 80
Survey of street lines adjacent to Chicago River.....		938 96
Maps and plans.....		405 97
Topographical map.....		444 00
Disposal of flood waters at Joliet.....		594 64
Flood measurement of Desplaines and Chicago Rivers.....		20 00
Repairing Willow Springs bridge.....		205 36
Right of way.....		601 53
General account.....		1,242 72
Total for the month of May.....	\$73,154 24	\$73,154 24

## JUNE, 1893.

To cash.....	\$99,587 44	
By locating route between Willow Springs and Joliet.....		\$ 36 00
Borings between Summit and Willow Springs.....		51 08
Flood measurements.....		17 30
Construction expenses.....		6,833 82
Payments to contractors on estimates.....	87,574 99	
Measurements Illinois River floods.....		57 13
Diversion North Branch of Chicago River.....		3 50

Temporary sanitary relief.....	\$ 84 00	
Office building at Sag Station.....	42 90	
Survey of street lines adjacent to Chicago River.....	209 65	
Maps and plans.....	330 44	
Topographical map.....	337 32	
Disposal of flood waters at Joliet.....	369 98	
Flood measurement of Desplaines and Chicago Rivers.....	20 00	
Repairing Willow Springs bridge.....	19 29	
Locating route below Section 14.....	34 41	
Estimating cost of service boat.....	21 95	
Maps for City Health Department.....	193 00	
Change of grade.....	85 00	
Right of way.....	1,246 00	
General account.....	1,969 68	
Total for the month of June.....	<u>\$99,537 44</u>	<u>\$99,537 44</u>

## JULY, 1893.

To cash.....	\$143,583 32	
By right of way.....	\$ 843 55	
Locating route between Ashland avenue and Willow Springs.....	54 33	
Borings between Summit and Willow Springs.....	3 00	
Flood measurements.....	3 33	
Construction expenses.....	6,903 56	
Payments to contractors on estimates.....	132,462 43	
Desplaines River Diversion.....	265 00	
Measurements of Illinois River floods.....	204 80	
Office building at Sag Station.....	36 37	
Survey street lines adjacent to Chicago River..	65 50	
Maps and plans.....	292 26	
Topographical map.....	132 39	
Disposal of flood waters at Joliet.....	511 38	
Maps for State Board of Health.....	3 33	
Flood measurements of Desplaines and Chicago Rivers.....	338 63	
Locating route below Section 14.....	74 17	
Locating route from Summit to Robey street..	182 67	
Maps for City Health Department.....	24 08	
Test pits.....	95 53	
General account.....	1,087 01	
Total for the month of July.....	<u>\$143,583 32</u>	<u>\$143,583 32</u>

## AUGUST, 1893.

To cash.....	\$210,315 86	
By Chicago River survey.....	\$ 70 00	
Locating route between Ashland avenue and Willow Springs.....	273 72	
Locating route bet. Willow Springs and Joliet.....	405 00	
Borings between Summit and Willow Springs.....	75	
Flood measurements.....	7 73	
Construction expenses.....	7,027 60	
Desplaines River Diversion.....	1,206 54	
Payments to contractors on estimates.....	197 499 33	
Measurements of Illinois River floods.....	173 53	
Temporary Sanitary relief.....	10	



Maps and plans.....	\$ 523 01
Topographical map.....	186 30
Disposal of flood waters at Joliet.....	152 35
Maps for State Board of Health.....	6 65
Flood measurements of Desplaines and Chicago Rivers.....	48 72
Locating route below Section 14.....	40 85
Locating route, Summit to Robey street.....	113 65
Test pits.....	707 78
Railroad bridge at Sag Station.....	274 66
Right of way.....	467 83
General account.....	1,129 76

Total for the month of August.....	\$210,315 86	\$210,315 86
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SEPTEMBER, 1893.

To cash .....	\$319,512 87	
By Chicago River survey.....		\$ 33 25
Locating route between Ashland avenue and Willow Springs.....		57 68
Flood measurements.....		8 89
Construction expenses.....	7,664 77	
Payments to contractors on estimates.....	287,099 44	
Desplaines River diversion.....	20,655 23	
Measurements of Illinois River floods.....	136 67	
Maps and plans.....	520 01	
Topographical maps.....	278 25	
Disposal of flood waters at Joliet.....	10 65	
Flood measurement of Desplaines and Chicago Rivers.....		20 00
Locating route, Summit to Robey street.....		5 00
Changing grade.....		20 00
Test pits.....	473 68	
Building Western Stone Co.'s R. R. bridge....	20 00	
Building Stephens street bridge.....	20 00	
Building Santa Fe R. R. bridge.....	129 99	
Repairing tow-path.....	710 50	
Spillway survey.....	32 10	
Right of way.....	455 73	
General account.....	1,161 03	

Total for the month of September .....	\$319,512 87	\$319,512 87
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OCTOBER, 1893.

To cash .....	\$468,111 43	
By Chicago River survey.....		\$ 6 28
Construction expenses.....	10,189 49	
Desplaines River diversion.....	138 057 14	
Payments to contractors on estimates.....	302,741 01	
Measurements Illinois River floods.....	59 53	
Maps and plans.....	909 99	
Topographical maps.....	105 49	
Disposal of flood waters at Joliet.....	10 00	
Flood measurements of Desplaines and Chicago Rivers.....		20 00
Test pits.....	401 05	
Repairing R. R. bridge at Sag Station.....	89 90	
Building Western Stone Co.'s R. R. bridge....	4,568 84	
Building Stephens street bridge.....	2,673 04	

Building Santa Fe R. R. bridge.....	\$ 4,780 70
Repairing tow-path.....	862 63
Making erosion test.....	328 21
Reconstructing Willow Springs bridge.....	44 67
Spillway.....	297 61
Photographs of works.....	29 16
Levee and trestle.....	66 00
Viewing Illinois River.....	40 84
Right of way.....	654 82
General account.....	1,175 03

Total for the month of October.....	<u>\$468,111 43</u>	<u>\$468,111 43</u>
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## NOVEMBER, 1893.

To cash.....	\$428,810 70
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By right of way.....	\$ 215 38
Construction expenses.....	8,453 77
Desplaines River Diversion.....	108,211 67
Payments to contractors on estimates.....	289,219 03
Measurements Illinois River floods.....	35 00
Maps and plans.....	932 50
Topographical map.....	20 00
Disposal of flood waters at Joliet.....	10 00
Flood measurements Desplaines and Chicago Rivers.....	20 00
Test pits.....	255 38
Building Western Stone Co.'s R. R. bridge.....	9,069 01
Building Stephens street bridge.....	5,064 39
Building Santa Fe R. R. bridge.....	8,810 52
Repairing towpath.....	350 75
Making erosion test.....	489 58
Spillway.....	922 56
Photographs of works.....	28 43
Levee and trestle.....	785 10
Viewing Illinois River.....	65 73
General account.....	851 90

Total for the month of November.....	<u>\$428 810 70</u>	<u>\$428,810 70</u>
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## DECEMBER, 1893.

To cash.....	\$256,376 22
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By locating route between Willow Springs and Joliet.....	\$ 40 58
Construction expenses.....	8 324 51
Desplaines River Diversion.....	41,048 70
Payments to contractors on estimates.....	151,179 50
Measurements Desplaines River floods.....	175 00
Maps and plans.....	1,032 87
Right of way.....	201 47
Disposal of flood waters at Joliet.....	398 63
Flood measurements Desplaines and Chicago Rivers.....	20 00
Topographical maps.....	155 00
Test pits.....	1,350 26
Building Western Stone Co.'s R. R. bridge.....	1,569 22
Building Stephens street bridge.....	10 050 46
Building Santa Fe R. R. bridge.....	3,858 52
Repairing towpath.....	140 75
Making erosion test.....	678 96

Levee and trestle.....	\$ 21,107 37
Viewing Illinois River.....	34
Spillway.....	13,943 16
Photographs of works.....	5 38
Summit Highway.....	61 81
General account.....	1,033 73

Total for the month of December.....	<u>\$256 376 22</u>	<u>\$256,376 22</u>
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Total for the year.....		<u>\$2,207,078 51</u>
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TABLE NO. 2.  
RECAPITULATION.

Chicago River Survey.....	\$ 945 96
Flood measurements.....	3,364 96
Construction expenses.....	82,638 52
Payments to Contractors on estimates—	
For Main Channel.....	\$1,325 665 28
For River diversion.....	<u>343,759 72</u>
	1,669,425 00
Desplaines River diversion.....	304 444 28
Diversion of North Branch of Chicago River.....	1,625 47
Borings and test pits.....	4,300 29
Plans and specifications.....	9,765 97
Locating route.....	1,462 06
Spillway.....	15,195 43
Survey of street lines adjacent to Chicago River.....	6 579 63
Disposal of flood waters at Joliet.....	2,757 12
Right of way.....	7,629 51
Change of grade.....	165 00
Levee and trestle.....	21,958 47
Photographs of works.....	62 97
Viewing Illinois River.....	106 91
Making Erosion test.....	1,496 75
Re-advertising work on Sections A, B and C.....	1 00
Temporary sanitary relief.....	84 10
Estimating cost of service boat.....	21 95
*Office building at Sag Station.....	1,770 63
Repairing Willow Springs bridge.....	269 32
Building foot bridge at Mt. Forest.....	32 17
Building Western Stone Company's Railroad bridge.....	15,227 07
Building Stephens Street bridge.....	17,807 59
Building Santa Fe Railroad bridge.....	17,579 73
Building railroad bridge at Sag Station.....	364 56
Repairing tow-path.....	2,064 63
Summit highway.....	61 81
General account.....	17,928 35
Total for the year.....	<u>\$2,207,088 51</u>
*Transferred to Police Department credit.....	1,770 63
Net total for the year 1893.....	<u>\$2,205,307 88</u>

This total when separated into expense of construction work and engineering appears as follows:

Cost of engineering.....	\$ 141,105 05
Cost of construction.....	2,064,202 83
Total.....	<u>\$2 205,307 88</u>



The foregoing statement, Table No. 2, does not include the reserved percentage held by the District. This percentage on the estimates covered in this report is as follows:

	1893—Amount Reserved.
Section A.....	\$ 7,279 33
Section B.....	6,906 13
Section C.....	8,537 90
Section D.....	6,700 45
Section E.....	18,211 74
Section F.....	10,892 76
Section 2.....	3,637 27
Section 4.....	3,796 43
Section 5.....	6,291 00
Section 6.....	7,418 25
Section 7.....	13,480 50
Section 8.....	14,505 68
Section 9.....	9,732 68
Section 10.....	23,205 62
Section 11.....	25,364 62
Section 12.....	26,333 00
Section 13.....	31,395 00
Total reservation for 1893.....	\$ 223,688 38
Cost reported in Table No. 2.....	2,205,307 88
Total, including reservations.....	<u>\$2,428,996 24</u>

TABLE NO. 3.

*Balance Sheet showing balance between Vouchers signed by Chief Engineer and total distribution for 1893.*

Dr. To total vouchers for 1893.....	\$2,224,132 10
Cr. By amount distributed under orders of the Board as previously shown.....	\$2,207,078 51
Cash on hand.....	1,000 00
Property on hand as per inventory.....	15,892 44
Returns of cash for maps sold.....	83 35
Returns of canal boat sold.....	75 00
Pay Roll balance entered in 1894 account.....	2 80
Total received and accounted for.....	<u>\$2,224,132 10</u> <u>\$2,224,132 10</u>

TABLE NO. 4.

*Balance Sheet showing balance between accounts of the Clerical and Engineering Departments for 1893.*

Total amount accounted for by Engineering Department.....	\$2,224,132 10
Amount charged to Engineering Account by Clerk.....	\$ 154,631 54
Amount charged to Construction Account by Clerk.....	2,097,816 44
Total charged to Engineering Department.....	\$2,252,447 98
Deduct Emergency Fund.....	\$ 82,000 00
Deduct Vouchers entered in 1892 account.....	5,147 17
	<u>\$ 87,147 17</u>
Balance.....	\$2,165,300 81
Add balance of unpaid Vouchers.....	58,831 29
Total Balance charged to Engineering Department.....	<u>\$2,224,132 10</u> <u>\$2,224,132 10</u>

TABLE NO. 5.

*Total Expenditures under the Various Orders of the Board of Trustees.*

Chicago River survey, 1893.....	\$ 945 96	
Previously reported.....	16,127 70	
	<hr/>	\$ 17,073 66
Flood measurements, 1893.....	3,364 96	
Previously reported.....	4,313 29	
	<hr/>	7,678 25
Construction expense, 1893.....	82,638 52	
Previously reported.....	21,906 99	
	<hr/>	104,545 51
Payments to contractors on estimates, 1893.....	1,669 425 00	
Previously reported.....	151,371 97	
	<hr/>	1,820,796 97
Des Plaines River Diversion, 1893.....	304,444 28	
Previously reported.....	.....	
	<hr/>	304,444 28
Diversion of the North Branch Chicago River, 1893.....	1,626 47	
Previously reported.....	2,017 04	
	<hr/>	3 643 51
Borings and test pits, 1893.....	4,300 29	
Previously reported.....	7,350 22	
	<hr/>	11,650 51
Plans and specifications, 1893.....	9,765 97	
Previously reported.....	1,786 37	
	<hr/>	11,552 34
Locating route, 1893.....	1 462 06	
Previously reported.....	29,822 95	
	<hr/>	31,285 01
Spillway, 1893.....	15,195 43	
Previously reported.....	.....	
	<hr/>	15,195 43
Survey street lines adjacent Chicago River, 1893.....	6,579 63	
Previously reported.....	896 69	
	<hr/>	7,476 32
Disposal of flood waters at Joliet, 1893.....	2,757 12	
Previously reported.....	840 91	
	<hr/>	3,598 03
Right of way, 1893.....	7,629 51	
Previously reported.....	5,754 14	
	<hr/>	13,383 65
Change of grade, 1893.....	105 00	
Previously reported.....	.....	
	<hr/>	105 00
Levee and trestle, 1893.....	21,958 47	
Previously reported.....	.....	
	<hr/>	21,958 47
Photographs of works, 1893.....	62 97	
Previously reported.....	.....	
	<hr/>	62 97
Viewing Illinois River, 1893.....	106 91	
Previously reported.....	.....	
	<hr/>	106 91
Making erosion test, 1893.....	1,496 75	
Previously reported.....	.....	
	<hr/>	1,496 75
Re-advertising work, 1893.....	1 00	
Previously reported.....	.....	
	<hr/>	1 00
Temporary Sanitary relief, 1893.....	84 10	
Previously reported.....	153 50	
	<hr/>	237 60
Estimating cost of service boat, 1893.....	21 95	
Previously reported.....	.....	
	<hr/>	21 95

Office building at Sag Station, 1893.....	1,770 63	
Previously reported.....	568 80	
		2,339 43
Repairing Willow Springs bridge, 1893.....	269 32	
Previously reported.....		
		269 32
Building foot bridge at Mt. Forest, 1893.....	32 17	
Previously reported.....		
		32 17
Building Western Stone Co.'s R. R. bridge, 1893.....	15,227 07	
Previously reported.....		
		15,227 07
Building Stevens street bridge, 1893.....	17,807 89	
Previously reported.....		
		17 807 89
Building Santa Fe R. R. bridge, 1893.....	17,579 73	
Previously reported.....		
		17,579 73
Repairing R. R. bridge at Sag Station, 1893.....	364 56	
Previously reported.....		
		364 56
Repairing towpath, 1893.....	2,064 63	
Previously reported.....		
		2,064 63
Summit Highway, 1893.....	61 81	
Previously reported.....		
		61 81
General account, 1893.....	17,928 35	
Previously reported.....	34,281 41	52,209 76
Grand total.....	\$2 484 270 49	\$2,484 270 49

This total when separated into expense of construction work and engineering appears as follows:

Cost of engineering.....	\$ 251 554 99	
Cost of construction.....	2,232,715 50	
		\$2,484,270 49

In the period between June 1st and December 31st, 1893, seven months, the excavation<sup>n</sup> accomplished was as follows:

	CUBIC YARDS.	
	Glacial Drift.	Solid Rock.
River Diversion .....	1,247,822	136,534
Main Channel .....	1,823,026	1,163,860
Total.....	3,070,848	1,304,894

Bridges and approaches were built as follows:

At Lemont, for the Santa Fe Railroad and the Stephens Street Highway; the Western Stone Company's track to Quarry No. 5; 4,400 feet of trestle from which to build embankment on Section A. Other construction accomplished includes the Spillway below Riverside; leveeing the River Diversion on the Rock Sections by putting earth cores in the rock embankments. The channel for draining Goose Lake, besides many minor works essential to the general progress.

In conclusion I desire to express my appreciation of the kind consideration and the hearty co-operation in all efforts to advance the work, which has been extended to me by your Honorable Body.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,

Chief Engineer."



REPORT AND ORDER ON DESCRIPTION AND  
PLAT OF CERTAIN "SANTA FE" LANDS.

The Clerk presented a joint report from the Chief Engineer and Attorney, transmitting a description and plat of property belonging to or used by the Atchison, Topeka & Santa Fe Railroad Company and the Chicago, Santa Fe and California Railway Company, and necessary for the District to acquire or use, said report being presented in response to an order passed at the meeting held August 29, 1894 (page 2168 of the Proceedings); and the report was read.

In connection with the report, Mr. Kelly presented an order, directing the Attorney to deliver to the proper officer of the Atchison, Topeka & Santa Fe Railroad Company and the Chicago, Santa Fe and California Railway Company, a copy of the said description and plat, transmitted by the Chief Engineer and Attorney, as provided in the order; and the order was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report, with accompanying description, be ordered printed, and, with plat, placed on file, the order adopted, and the Attorney directed in accordance with the same.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report with accompanying description ordered printed, and, with plat, placed on file, the order adopted, and the Attorney directed in accordance with the same.

The following is

THE REPORT, WITH ACCOMPANYING  
DESCRIPTION:

"CHICAGO, September 12, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In accordance with the order of your Honorable Body of August 29, 1894, we have caused to be prepared descriptions and plat of the property belonging to or used by the Atchison, Topeka and Santa Fe Railroad Company and the Chicago, Santa Fe and California Railway Company, or either of same, which it will be necessary for the Sanitary District to acquire or use for the complete construction of the channel and other works which it is authorized to construct, and transmit same herewith.

These descriptions together with the land included in the two condemnation suits already in court include all the rights of way of either of said railways through which it will be necessary to carry the Main Channel of the District.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*  
GEO. E. DAWSON,  
*Attorney."*

(Accompanied by description and plat.)

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*Description of Right of Way.*

"Description, accompanying plat, of property near Corwith, Illinois, belonging to or used by the Atchison, Topeka & Santa Fe Railroad Company and the Chicago, Santa Fe and California Railway Company, or either of same, which it will be necessary for the Sanitary District of Chicago to acquire or use for the complete construction of its Main Channel and other works which it is authorized to construct.

That part of the Southwest quarter (S. W.  $\frac{1}{4}$ ) of Section thirty-five (35), Township thirty-nine (39) North, Range thirteen (13), East of the Third Principal Meridian, described as follows:

Beginning at a point on the East (E.) line of said Southwest quarter (S. W.  $\frac{1}{4}$ ) of said Section thirty-five (35), one hundred and eighty-one (181) feet south of the center of said Section thirty-five (35); thence southwesterly on a line parallel with the center line of the Main Drainage Channel of the Sanitary District of Chicago to the West (W.) line of the right of way of the Chicago, Santa Fe & California Railway; thence southerly on said West (W.) right of way line two hundred and seventy-three and eighty-two one-hundredths (273.82) feet; thence on a curve to the right with a radius of seven hundred and fourteen and forty-nine one-hundredths (714.49) feet for a distance of one hundred and two and eighty-eight one-hundredths (102.88) feet; thence on a curve to the right with a radius of five hundred and twenty-three and sixty-eight one-hundredths (523.68) feet for a distance of sixty-nine (69) feet; thence northeasterly on a line parallel with the center line of the Main Drainage Channel of the Sanitary District of Chicago to

the East (E.) line of said Southwest quarter (S. W.  $\frac{1}{4}$ ) of said Section thirty-five (35), thence northerly on said East (E.) line to the point of beginning, containing five hundred and forty-four one-thousandths (0.544) acres, more or less.

That part of the southeast quarter (S. E.  $\frac{1}{4}$ ) of Section thirty-five (35), Township thirty-nine (39) North, Range thirteen (13), East of the Third Principal Meridian, described as follows:

Beginning at a point in the west (W.) line of said southeast quarter (S. E.  $\frac{1}{4}$ ) of said Section thirty-five (35), one hundred and eighty-one (181) feet south of the center of said Section thirty-five (35); thence northeasterly on a line parallel with the center line of the Main Drainage Channel of the Sanitary District of Chicago to the east (E.) line of the right of way of the Chicago, Santa Fe and California Railway; thence southerly on said right of way line four hundred and thirty-four (434) feet; thence southwesterly on a line parallel with the center line of the Main Drainage Channel of the Sanitary District of Chicago to the west (W.) line of said southeast quarter (S. E.  $\frac{1}{4}$ ) of Section thirty-five (35); thence northerly on said west (W.) line to the point of beginning, containing two hundred and forty-nine one thousandths (0.249) acres, more or less.

All of said above described premises lying and being situate in the County of Cook, in the State of Illinois.

Description, accompanying plat, of property near Summit, Illinois, belonging to or used by the Atchison, Topeka & Santa Fe Railroad Company and the Chicago, Santa Fe & California Railway Company, or either of same, which it will be necessary for the Sanitary District of Chicago to acquire or use for the complete construction of its Main Channel and other works which it is authorized to construct.

That part of the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section seven (7), Township thirty-eight (38) North, Range thirteen (13), East of the Third Principal Meridian, described as follows:

Beginning at the northeast (N. E.) corner of said Section seven (7), and running thence westerly on the north (N.) line of said section, eight hundred and twenty-two (822) feet; thence southwesterly on a

line parallel with the center line of the Main Drainage Channel of the Sanitary District of Chicago to the south (S.) line of the right of way of the Chicago, Santa Fe & California Railway; thence east on said south (S.) right of way line of said railway to the east (E.) line of said Section seven (7); thence north on said east (E.) line to the point of beginning, containing one and three hundred and seventy one-thousandths (1.370) acres, more or less.

That part of the Southwest quarter (S. W.  $\frac{1}{4}$ ) of Section five (5), Township thirty-eight (38) North, Range thirteen (13) East, of the Third Principal Meridian, described as follows:

Beginning at the Southwest (S. W.) corner of said Section five (5), and running thence easterly on the South (S.) line of said section, two hundred and sixty-seven (267) feet; thence northeasterly on a line parallel with the center line of the Main Drainage Channel of the Sanitary District of Chicago to the North (N.) line of the right of way of the Chicago, Santa Fe & California Railway; thence westerly on said North (N.) right of way line of said railway to the West (W.) line of said Section five (5); thence south on said West (W.) line to the point of beginning, containing two hundred and thirty-four one-thousandths (0.234) acres, more or less.

That part of the Northwest quarter (N. W.  $\frac{1}{4}$ ) of Section eight (8), Township thirty-eight (38) North, Range thirteen (13), East of the Third Principal Meridian, described as follows:

Beginning at the Northwest (N. W.) corner of said Section eight (8), and running thence easterly two hundred and sixty-seven (267) feet; thence southwesterly on a line parallel with the center line of the Main Drainage Channel of the Sanitary District of Chicago to the South (S.) line of the right of way of the Chicago, Santa Fe & California Railway; thence westerly on said South (S.) right of way line to the West (W.) line of said Section eight (8); thence north on said West (W.) line to the point of beginning, containing two hundred and seventy-eight one-thousandths (0.278) acres, more or less.

That part of the southeast quarter (S. E.  $\frac{1}{4}$ ) of Section six (6), Township thirty-eight (38) North, Range thirteen (13), East



of the Third Principal Meridian, described as follows:

Beginning at the southeast (S. E.) corner of said Section six (6) and running thence westerly on the south (S.) line of said Section, eight hundred and twenty-two (822) feet; thence northeasterly on a line parallel with the center line of the Main Drainage Channel of the Sanitary District of Chicago to the north (N.) line of the right of way of the Chicago, Santa Fe and California Railway; thence easterly on said north (N.) line of said railway to the east (E.) line of said Section six (6); thence south (S.) on said east (E.) line to the point of beginning, containing seven hundred and nineteen one-thousandths (0.719) acres, more or less.

All of said above described premises lying and being situate in the County of Cook, in the State of Illinois.

Description, accompanying plat, of property near Lemont, Illinois, belonging to or used by the Atchison, Topeka & Santa Fe Railroad Company and the Chicago, Santa Fe & California Railway Company, or either of same, which it will be necessary for the Sanitary District of Chicago to acquire or use for the complete construction of its Main Channel and other works which it is authorized to construct.

All that part of the right of way now occupied by the Chicago, Santa Fe & California Railway in the northeast quarter (N. E.  $\frac{1}{4}$ ) of Section twenty (20), Township thirty-seven (37) North, Range eleven (11), East of the Third Principal Meridian, lying between a line two hundred and thirty-six (236) feet north of and parallel with the center line of the Main Drainage Channel of the Sanitary District of Chicago and a line one hundred and twenty-six (126) feet south of and parallel with said center line of Main Drainage Channel.

Said premises lying and being situate in the County of Cook, in the State of Illinois."

(Plat attached.)

The following is

#### THE ORDER:

"*Ordered*, That pursuant to the stipulation entered into by this District with the Atchison, Topeka & Santa Fe Railroad Company and the Chicago, Santa Fe & California Railway Company of August 5, 1893, the Attorney be and he

is hereby directed to deliver to the proper officer of each of said companies a copy of the descriptions and plat submitted by the Engineer and Attorney to this Board of the property belonging to them or either of them which it will be necessary for the Sanitary District to acquire or use."

#### RESCINDING OF ORDER FOR APPEAL IN "YORE, COOK, ET AL." CASE.

The Clerk presented a report from the Attorney, recommending that the order of April 5, 1893 (page 1140 of the Proceedings), directing the Attorney to perfect an appeal to the Supreme Court of the State of Illinois, and authorizing and directing the President and Clerk to execute the necessary bond, in the case of the Sanitary District of Chicago vs. Ellen E. Yore, John A. Cook, et al., be rescinded, and that the Attorney be authorized and directed to enter into a stipulation in said case, as set forth in the report; and the report was read.

Mr. Kelly, seconded by Mr. Russell, moved that the report be adopted, ordered printed, and placed on file, the order for said appeal rescinded, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Kelly, Russell and Wenter—five (5.) Excused and not voting—Mr. Boldenweck—one (1.) Nays—Mr. Eckhart—one (1.)

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the order for said appeal rescinded, and the recommendations made in the report concurred in.

The following is

#### THE REPORT:

"CHICAGO, Sept. 12, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—By the order of your Honorable Body of April 5, 1893, the Attorney was instructed to perfect an appeal to the Supreme Court from the judgment of the Circuit Court in the case of the Sanitary District vs. Ellen E. Yore, John A. Cook et al. Since there were at that time one or two cases pending in the Supreme Court in which substantially the same legal questions were involved, the Attorney with the concurrence of members of your Board delayed perfecting said appeal until decisions were reached in the other cases



Meanwhile an appeal was taken to the Appellate Court from the order of the Circuit Court directing the bank with which the amount of the verdict had been deposited to pay over the money to the defendants, and the position of the Sanitary District was sustained.

Since then decisions have been rendered in the Supreme Court in the cases referred to, which, in my opinion, would make it a useless expense to carry the Yore case up to the Supreme Court. The Sanitary District could not, under the circumstances, reasonably hope for a favorable decision.

Mrs. Yore died shortly after the entry of the order of judgment in her case, and the settlement of her estate is delayed by reason of a possibility of a writ of error being sued out in this condemnation suit. I would therefore recommend that the order of April 5, 1893, directing the Attorney to perfect an appeal in the case of the Sanitary District of Chicago vs. Ellen E. Yore, John A. Cook et al., Gen. No. 106,951, in the Circuit Court of Cook County, Illinois, be rescinded, and that the Attorney be authorized and directed to enter into a stipulation on the part of the District that no writ of error shall hereafter be sued out in said cause. The heirs of Mrs. Yore have expressed their readiness to give quit-claim deeds to the land taken in the condemnation suit.

Respectfully submitted,

(Signed) GEO. E. DAWSON,  
*Attorney."*

#### MONTHLY REPORT FROM SANITARY INSPECTOR.

The Clerk presented a report from the Sanitary Inspector for the months of July and August, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Sept. 12, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—During the months of July and August no epidemic of disease has prevailed in the various camps along the line. This I attribute to the extreme dryness which characterized the past summer, as vast quantities of alluvial

soil have been excavated from the dirt sections, which, under ordinary conditions of heat and moisture, would have resulted in the development of a great deal of malaria. There has not been one per cent of the working force laid off on account of sickness.

In regard to the complaints made to this Board about the quality of the food served to the men on Section C, and the way in which the bunk houses are cared for, I think there has been great exaggeration. What material is used for food appears to be of good quality, and of about as much variety as one finds in camps and boarding houses that feed this class of labor. Bread and meat are the staples, with potatoes, cabbage, onions, beets, beans, carrots and peas as the vegetables. There appears to be enough fresh vegetables and meat served to keep the men in a healthy condition in all of the camps, as I have not seen a single case of scurvy on the line up to the present time, which would not have been the case if the men were not served with food of this kind.

Most respectfully submitted,

(Signed) WILLIAM MARTIN, M. D.  
*Sanitary Inspector."*

#### RECONSIDERATION OF VOTE ON POSTPONEMENT OF ACTION ON MINUTES, AND APPROVAL OF SAME.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the vote by which action on the minutes of the regular meetings held August 29 and September 5, 1894, was deferred until the next meeting, be reconsidered.

The motion prevailed unanimously, and it was so ordered.

Mr. Boldenweck, seconded by Mr. Eckhart, then moved that the minutes of the regular meetings held August 29 and September 5, 1894, be approved as printed.

The motion prevailed unanimously, and it was so ordered.

#### PRESENTATION OF BIDS FOR RE-LETTING OF SECTION E OF MAIN CHANNEL.

The President then announced that in conformity with the advertisement of August 29, 1894, inviting proposals for the work of completing the excavation of Section E of the Main Channel, the Board would now proceed to open the bids received in response to same.

The Clerk then presented and opened bids as shown by the following

### SCHEDULE OF BIDS:

No. of Bids.	NAME OF BIDDERS.	Checks Deposited.
1	J. D. Moran Manufacturing and Construction Co., St. Paul, Minn....	\$ 5,000
2	Mallory, Cushing & Co., Omaha, Neb.....	5,000
3	Lewis M. Loss, Chicago, Ill.....	5,000
4	Campbell, Dennis & Co., Joliet, Ill.....	5,000
5	Heldmaier & Neu, Chicago, Ill.....	5,000
6	F. C. Weir, Cincinnati, Ohio.....	5,000
7	C. Sullivan, Madison, Wis.....	5,000
8	The Panama Construction Company, Chicago, Ill.....	5,000
9	E. D. Smith & Co., Romeoville, Ill.....	5,000
10	Griffiths & McDermott Construction Company, Chicago, Ill.....	5,000
11	Grace & Hyde Company, Chicago, Ill.....	5,000
12	Lydon & Drews, Chicago, Ill.....	5,000
13	Angus & Gindele, Chicago, Ill.....	5,000

### THE FOLLOWING ARE THE BIDS IN DETAIL:

#### SECTION E.

#### BID NO. 1—J. D. MORAN MANUFACTURING & CONSTRUCTION CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.46	\$595,240 00
Solid Rock.....	75,000	.80	60,000 00
Total.....			\$655,240 00

#### BID NO. 2—MALLORY, CUSHING & CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.41 $\frac{3}{4}$	\$540,245 00
Solid Rock.....	75,000	.80	60,000 00
Total.....			\$600,245 00

#### BID NO. 3—LEWIS M. LOSS.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.49	\$634,060 00
Solid Rock.....	75,000	.49	36,750 00
Total.....			\$670,810 00

## BID NO. 4—CAMPBELL, DENNIS &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.31	\$401,140 00
Solid Rock.....	75,000	.74½	55,875 00
Total.....			\$457,015 00

## BID NO. 5—HELDMAIER &amp; NEU.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.42	\$543,480 00
Solid Rock.....	75,000	.92	69,000 00
Total.....			\$612,480 00

## BID NO. 6—F. C. WEIR.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.33	\$427,020 00
Solid Rock.....	75,000	.80	60,000 00
Total.....			\$487,020 00

## BID NO. 7—C. SULLIVAN.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.36	\$465,840 00
Solid Rock.....	75,000	.90	67,500 00
Total.....			\$533,340 00

## BID NO. 8—THE PANAMA CONSTRUCTION COMPANY.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.39½	\$511,130 00
Solid Rock.....	75,000	.95	71,250 00
Total.....			\$582,380 00



## BID NO. 9—E. D. SMITH &amp; CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.37½	\$485,250 00
Solid Rock.....	75,000	.70	52,500 00
Total.....			\$537,750 00

## BID NO. 10—GRIFFITHS &amp; M'DERMOTT CONSTRUCTION COMPANY.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$ .30 8-10	\$398,552 00
Solid Rock.....	75,000	1.00	75,000 00
Total.....			\$473,552 00

## BID NO. 11—GRACE &amp; HYDE CO.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.39	\$504,660 00
Solid Rock.....	75,000	1.10	82,500 00
Total.....			\$587,160 00

## BID NO. 12—LYDON &amp; DREWS.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294,000	\$0.37	\$478,780 00
Solid Rock.....	75,000	1.00	75,000 00
Total.....			\$553,780 00

## BID NO. 13—ANGUS &amp; GINDELE.

CLASSIFICATION.	Quantities— Cu. Yds.	Price.	Amount.
Glacial Drift.....	1,294 000	\$0.27	\$349,380 00
Solid Rock.....	75 000	.70	52,500 00
Total.....			\$401,880 00

BIDS TO BE TABULATED AND REFERRED TO  
JOINT COMMITTEE ON ENGINEERING  
AND FINANCE.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the bids just received be compiled, summarized and tabulated by the Chief Engineer, incorporated in Proceedings, and the subject matter of the bids be referred to the Joint Committee on Engineering and Finance, with instructions to report back at the next meeting.

The motion prevailed unanimously, and it was so ordered.

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*

PROCEEDINGS

—OF THE—

BOARD OF TRUSTEES

—OF THE—

SANITARY DISTRICT OF CHICAGO.

SEPTEMBER 19, 1894.

OFFICIAL RECORD.

*(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and thirty-ninth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, September 19, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly and Wenter—six (6) members, were present.

MINUTES.

The minutes of the regular meeting, held September 12, 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Boldenweck.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

Isham Randolph, Chief Engineer, (test pits, material, Sections E and F)..... \$ 584 56

LAW DEPARTMENT.

Frank Rosenfeld, (test pits, Will County)..... 150 00

GENERAL ACCOUNT.

John F. Higgins, (printing proceedings, etc., August, 1894)... 292 63

Total..... \$1 037 19

Mr. Kelly, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—



Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly and Wenter—six (6).  
Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

#### WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending September 15, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

"CHICAGO, Sept. 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending September 15, 1894, as the same have been reported to me:

Engineering Department.....	137
Clerical Department.....	4
Law Department.....	7
Treasury Department.....	1
Police Department.....	46

Total employes..... 195

Respectfully submitted,

(Signed)

THOS. F. JUDGE,

*Clerk."*

#### TABULATION OF BIDS ON RE-LETTING SECTION E OF THE MAIN CHANNEL.

The Clerk presented a report from the Chief Engineer, showing in detail, as presented at the last meeting, the bids

for completion of the excavating of Section E of the Main Channel, with extensions and a tabulation of the same; and the report was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the report, with enclosed tables, be ordered printed and placed on file, the subject matter of the bids having already been referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT, WITH ACCOMPANYING TABLES:

"CHICAGO, Sept. 19, 1894.

*To the Honorable, the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith the following documents covering the bids received on the 12th inst. for completing Section E under the terms of the original contract, which empower you to proceed with the work and charge the same to the account of the original contractors.

First, a schedule of the names of the bidders with their addresses and amount deposited with each bid.

Second, a key to the schedule of bids, giving the names of the bidders and the prices for each class of material in the order in which the bids were received.

Third, a table of bids in the order of magnitude, lowest bid first.

Fourth, tables showing prices bid applied to the quantities of material in detail.

Respectfully submitted,

(Signed)

ISHAM RANDOLPH,

*Chief Engineer."*

(Enclosing four (4) tables.)

## KEY TO SCHEDULE OF BIDS ON SECTION E, RECEIVED SEPT. 12, 1894.

NAMES OF BIDDERS IN THE ORDER IN WHICH THEIR BIDS WERE RECEIVED.

Bid No.	NAME OF BIDDER.	PRICE BID.	
		Glacial Drift.	Solid Rock.
1	J. D. Moran Manufacturing & Construction Co.....	\$0.46	\$0.80
2	Mallory, Cushing & Co.....	41 $\frac{3}{4}$	80
3	Lewis M. Loss.....	49	49
4	Campbell, Dennis & Co.....	31	74 $\frac{1}{2}$
5	Heldmaier & Neu.....	42	92
6	F. C. Weir.....	33	80
7	C. Sullivan.....	36	90
8	The Panama Construction Co.....	39 $\frac{1}{2}$	95
9	E. D. Smith & Co.....	37 $\frac{1}{2}$	70
10	Griffiths & McDermott Construction Co.....	50 8-10	1.00
11	Grace & Hyde Co.....	39	1.10
12	Lydon & Drews.....	37	1.00
13	Angus & Gindele.....	27	70

TABLE OF BIDS IN ORDER OF MAGNITUDE—LOWEST BID FIRST.

Bid No.	Order.	NAME OF BIDDER.	Amount.
13	1	Angus & Gindele, Chicago, Ill.....	\$401,880 00
4	2	Campbell, Dennis & Co., Joliet, Ill.....	457,015 00
10	3	Griffiths & McDermott Construction Company, Chicago, Ill...	473,552 00
6	4	F. C. Weir, Cincinnati, Ohio.....	487,020 00
7	5	C. Sullivan, Madison, Wis.....	533,340 00
9	6	E. D. Smith & Co., Romeoville, Ill.....	537,750 00
12	7	Lydon & Drews, Chicago, Ill.....	553,780 00
8	8	The Panama Construction Company, Chicago, Ill.....	582,380 00
11	9	Grace & Hyde Company, Chicago, Ill.....	587,160 00
2	10	Mallory, Cushing & Co., Omaha, Neb.....	603,245 00
5	11	Heldmaier & Neu, Chicago, Ill.....	612,480 00
1	12	J. D. Moran Mnf'g and Construction Co., St. Paul, Minn.....	655,240 00
3	13	Lewis M. Loss, Chicago, Ill.....	670,810 00

SETTLEMENT OF EXPERT WITNESS FEES  
IN CONDEMNATION CASES.

The Clerk presented a report from U. W. Weston, accompanied by statement, fourteen (14) receipts and check (\$275), being an account of moneys advanced on vouchers for the payment of expert witnesses in the "Swift," "Piper" and other condemnation cases, as set forth in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Altpeter, moved that the report be ordered printed and, with enclosures, referred to the Committee on Finance, with instructions to report back to the Board.

The motion prevailed unanimously, and it was so ordered.

The following is

## THE REPORT:

"CHICAGO, September 12, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN — Herewith I present a statement of the disbursements made on voucher No. 2486, passed Nov. 11th, 1892, and voucher No. 3166, passed March 1st, 1893. These vouchers were respectively for \$150 and \$725, being a total of \$875. The money covering voucher No. 2486 was not disbursed at the time for the reason that further service was then required of the same parties, and it was thought best to make full settlement after the pending cases, viz: The Swift & Co. and the A. S. Piper & Co. Ice Plants, were finally disposed of. The per diem allowed the experts in these cases was the same as that given to real estate experts, but in view of a probable settlement by the Board with the owners of the ice plants, thus avoiding the necessity of these witnesses appearing in court, many of them accepted a less sum leaving a surplus of \$400 in my hands. On the 8th of April, 1893, I made a report thereon to the Clerk of the Board. After consulting with the Finance Committee and Clerk, it was deemed advisable to leave it in my hands to be applied to other matters then pending. With that understanding, I have disbursed \$125 of the foregoing amount on account of examining and appraising the Ogden, Prescott, Wenworth, et al. property, leaving a net balance in my hands of \$275, check for which accompanies this report, as also receipts for all the moneys paid out.

I also transmit herewith a tabulated statement of the disbursements made by

me from the moneys received on said vouchers.

The last two items amounting to \$125 are the expenditures above referred to for appraising the Ogden, Prescott, et al. property. These have not been heretofore allowed by the Board, and I ask that same be now approved.

Respectfully submitted,

(Signed) U. W. WESTON."

(Accompanied by statement, check and 14 receipts)

PAYMENT FOR "FLAHERTY, M'CORMICK,  
ET AL." LAND.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, transmitting an order, with reference to the payment to Leander J. McCormick, Cyrus H. McCormick, Jr., and Nettie F. McCormick, and certain Trustees under the wills of Cyrus H. and Mary Virginia McCormick, deceased; Edward F. Cullerton; Lorin C. Collins, Jr.; William E. Mason; Mary Flaherty, Sarah Flaherty, Elizabeth Robbins, John F. Flaherty, Thomas Flaherty and Charles Flaherty; Wallace Heckman, mortgagee, and V. C. Price, mortgagee, on the vouchers of the Attorney, certain sums, as provided in the order, for certain right of way lands in Cook County, in full of verdict for said lands in the case of the Sanitary District of Chicago vs. Mary Flaherty et al.; and the report and order were read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying order adopted.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, the accompanying order adopted, and the Clerk authorized and directed to pay Leander J. McCormick, Cyrus H. McCormick, Jr., and Nettie F. McCormick, and certain Trustees under the wills of Cyrus H. and Mary Virginia McCormick, deceased; Edward F. Cullerton; Lorin C. Collins, Jr.; William E. Mason; Mary Flaherty, Elizabeth Robbins and John F. Flaherty, Thomas Flaherty and Charles Flaherty;



Wallace Heckman, mortgagee, and V. C. Price, mortgagee, on the vouchers of the Attorney, certain sums, as provided in the order, for certain right of way lands in Cook County, in full of verdict for said lands in the case of the Sanitary District of Chicago vs. Mary Flaherty et al., as provided in the order.

The following is

THE REPORT, WITH ACCOMPANYING  
ORDER:

"CHICAGO, September 19, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering have finally reached an agreement with the heirs of Patrick Flaherty, the McCormicks and others interested in the five and thirty-five one-hundredths (5.35) acres of land just east of Western avenue within our right of way for the purchase from them of said land described in the order herewith submitted for the sum of twenty-three thousand four hundred and eighty-five dollars and eighty-four cents (\$23,485.84) a verdict for said sum having been entered in the Circuit Court and order of judgment thereon.

We submit herewith an order for the payment of the respective sums directed to be paid to the parties interested under said verdict and order of judgment, and recommend that same be passed by your Honorable Body.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

THOMAS KELLY,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(Accompanied by order)

The following is

THE ORDER:

"Ordered, That the Clerk of this District be, and he is hereby authorized and directed to pay on the vouchers of the Attorney to Leander J. McCormick, Cyrus H. McCormick, Jr., Nettie F. McCormick; Cyrus H. McCormick, Jr., and Nettie F. McCormick, Trustees under the will of Cyrus H. McCormick, deceased, for Anita McCormick Blaine, Harold Fowler McCormick and Stanley

Robert McCormick; and Nettie F. McCormick, Cyrus H. McCormick, Jr., and Eldridge M. Fowler, Trustees of Mary Virginia McCormick, or to Hubert W. Butler, their attorney, the sum of three thousand four hundred and eighty dollars (\$3,480).

To Edward F. Cullerton, the sum of two thousand five hundred dollars and seventy-three cents (\$2,500.73).

To Lorin C. Collins, Jr., the sum of two thousand five hundred dollars and seventy-three cents (\$2,500.73).

To William E. Mason, the sum of five thousand and one dollars and forty-six cents (\$5,001.46).

To Mary Flaherty, Sarah Flaherty, Elizabeth Robbins, John F. Flaherty, Thomas Flaherty and Charles Flaherty, or to John D. Adair and Oscar E. Leinan, their attorney, the sum of eight thousand eight hundred and forty-eight dollars and fourteen cents (\$8,848.14).

To Wallace Heckman, mortgagee, the sum of two hundred and fifty-seven dollars and sixty-six cents (\$257.66).

To V. C. Price, mortgagee, the sum of eight hundred and ninety-seven dollars and twelve cents (\$897.12).

In full payment for the following described land, to-wit:

That part of the west half (W.  $\frac{1}{2}$ ) of the west half (W.  $\frac{1}{2}$ ) of the southwest quarter (S. W.  $\frac{1}{4}$ ) of Section thirty (30), Township thirty-nine (39) North, Range fourteen (14), east of the Third Principal Meridian, bounded and described as follows:

Beginning at a point in the west (W.) line of said section, five hundred and twelve (512) feet north (N.) of the southwest (S. W.) corner thereof, and running thence south (S.) on said west (W.) line two hundred and twenty-nine (229) feet; thence east (E.) on a line parallel with the south (S.) line of said section, two hundred and ninety (290) feet, more or less, to the northeast (N. E.) corner of the boulevard; thence south (S.) on a line parallel with the west (W.) line of said section to a point one hundred (100) feet north (N.) of the south (S.) line of said section; thence east (E.) on a line parallel with said south (S.) line of said section, three hundred and seventy-five and nine tenths (375.9) feet, more or less, to the east line of said west half (W.  $\frac{1}{2}$ ) of the west half (W.  $\frac{1}{2}$ ) of the southwest S. W.  $\frac{1}{4}$ ; thence north (N.) on said east (E.) line, six hundred and eighty-three and seventy-five one-hundredths (683.75)

feet; thence southwesterly in a straight line to the point of beginning, excepting therefrom so much of said premises as are known and described as Lot five (5) in the County Clerk's Division of unsubdivided lands in that part lying south (S.) of the west fork of the south branch of the Chicago river of the west half (W.  $\frac{1}{2}$ ) of the west half (W.  $\frac{1}{2}$ ) of the southwest quarter (S. W.  $\frac{1}{4}$ ) (except boulevard) of Section thirty (30), Township thirty-nine (39) North, Range fourteen (14), east of the Third Principal Meridian, said premises lying and being situate in the County of Cook in the State of Illinois, and containing five and thirty-five one-hundredths (5.35) acres, more or less.

Said sums being the respective amounts awarded by the verdict and report of the jury in the case of the Sanitary District of Chicago vs. Mary Flaherty et al., in the Circuit Court of Cook County, Illinois, General No. 128,570, entered in said court this nineteenth day of September, A. D. 1894."

#### REPORT ON LOCATION OF DISTRICT BUILDINGS LEASED ON SECTION A.

Mr. Eckhart, Chairman presented a report from the Committee on Finance, with reference to and accompanied by a communication presented and referred to that Committee at the meeting held June 30, 1894, (page 2031 of the Proceedings) from Heldmaier & Neu, Contractors on Sections A and B of the Main Channel, and also by a communication from the Board of Canal Commissioners of the Illinois and Michigan Canal, concerning the rent of District buildings on Section A under lease; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and with enclosures placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

"CHICAGO, Sept. 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the communication from Messrs. Heldmaier & Neu, with reference to the location of District buildings leased on Section A, presented and referred to the Committee on Finance at the meeting held June 30, 1894 (page 2031 of the Proceedings), your

Committee respectfully report that they have communicated with the Board of Canal Commissioners of the Illinois and Michigan Canal, and that satisfactory arrangements have been made between Messrs. Heldmaier & Neu and the said Canal Commissioners for the rental of such portion of the Canal land as the buildings occupy.

The communication, together with a letter from the Board of Canal Commissioners, is returned herewith for filing.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

THOMAS KELLY,  
Committee on Finance."

(Two (2) enclosures)

#### AWARDING AND COMPLETION OF CONTRACT FOR RE-LETTING OF SECTION J OF MAIN CHANNEL.

Mr. Kelly, for the Joint Committee on Engineering and Finance, presented a report from that Committee, recommending the awarding of the contract for the completion of the excavation of Section E of the Main Channel to Angus & Gindele, the lowest bidder of September 12, 1894, as provided in the report; transmitting, in duplicate, the amended contract for the work on said Section, the same being executed by said lowest bidder, and also a communication from the American Surety Company of New York, concerning bond; recommending that the President and Clerk be authorized and directed to execute the said contract, on behalf of the District, as provided in the report, and further recommending the return to each and all of the bidders on said Section, of the checks deposited with their bids; and the report was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report be adopted, with accompanying contract, ordered printed, and, with all enclosures, placed on file, the recommendations made in the report concurred in, the President and Clerk authorized and directed to execute the said contract, on behalf of the District, as provided in the report, and the Clerk authorized and directed to return to each and all of the bidders on Section E, the checks deposited with their bids.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report



adopted, with accompanying contract, ordered printed and, with all enclosures, placed on file, the recommendations made in the report concurred in, the President and Clerk authorized and directed to execute the said contract of behalf of the District, as provided in the report, and the Clerk authorized and directed to return to each and all of the bidders on Section E the checks deposited with their bids.

The following is

THE REPORT, WITH ACCOMPANYING  
CONTRACT, ETC.:

"CHICAGO, Sept. 19, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance, to whom was referred the bids for the completion of the work on Section E of the Main Channel, have considered the same.

We recommend that the contract therefor be awarded to the firm of Angus & Gindele, at their bid, to-wit: Glacial drift, twenty-seven (27) cents per cubic yard; solid rock, seventy (70) cents per cubic yard; said firm being the lowest bidder.

The American Surety Company of New York has expressed its willingness to become surety on the bond of these contractors as per communication hereto attached, and a bond signed by it would be satisfactory to the Committee on Finance.

The Committee submits the contract herewith, duly signed by second party, and we recommend that the President and Clerk be authorized and directed to execute the same on behalf of the District as soon as the bond shall have been completed to the satisfaction of the Committee on Finance.

We further recommend that the Clerk be authorized and directed to return to each and all of the bidders on said Section E the checks deposited by them with their bids.

Respectfully submitted,

(Signed) THOMAS KELLY,  
B. A. ECKHART,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance."*

(Accompanied by communication and contract, in duplicate.)

The following is the form of

### CONTRACT, ETC:

"THE SANITARY DISTRICT OF CHICAGO.

Contract and specifications for the Main Drainage Channel in the valley of the Desplaines River, from Willow Springs to a point near Summit, Illinois.

*This Agreement, Made and entered into this nineteenth (19th) day of September A. D., 1894, by and between the Sanitary District of Chicago, of the first part, and John Angus, George A. Gindele and Bruno Kniffler, doing business under the firm name and style of Angus & Gindele, of the second part.*

—A—

WITNESSETH: That the said party of the second part has covenanted, contracted and agreed, and by these presents does covenant, contract and agree with said party of the first part, for the consideration of the payments to be made as provided for herein, to the said party of the second part, by the said party of the first part, and under a penalty expressed in a bond bearing even date herewith, at his own proper cost and expense to do all the work, and to furnish all materials, tools, explosives, labor, and all appliances and appurtenances called for by this agreement, in the manner and under the conditions hereinafter stipulated, that are necessary to the complete excavation and entire removal of earth, rock, glacial drift and other material, from that portion of the said Main Drainage Channel, known and distinguished by the specification herein contained, and the plans accompanying them, as Section E, together with the building of all collateral works, which, by the terms of this contract, are included in the same. Said Section to be entirely completed and prepared ready for inspection as provided for in Section 27 of an act of the Legislature of the State of Illinois, entitled "An Act to create Sanitary Districts and to remove obstructions in the Desplaines and Illinois rivers," approved May 29, 1889, in force July 1, 1889.

B—

It is further covenanted, contracted and agreed that the work shall be executed under the direction and supervision of the Chief Engineer of the Sanitary District of Chicago, and his properly authorized agents, and by whose measurements and



calculations the quantities and amounts of the several kinds of work performed under this contract shall be determined, and on whose inspection all work shall be accepted or condemned. The said Chief Engineer and his properly authorized agents shall have full power to reject or condemn all materials furnished or work performed under this contract which do not fully conform to its spirit, and to the terms and conditions herein expressed; and the Chief Engineer shall decide every question which may arise between the parties hereto relative to the execution thereof, and his decision shall be final and binding upon both parties.

C—

Wherever the words "Sanitary District" are used in this contract they shall be understood to mean the Sanitary District of Chicago, as represented by the Board of Trustees, or their duly authorized and accredited agents.

Wherever the word "Engineer" is used herein, it shall be understood to mean the Chief Engineer of the Sanitary District of Chicago, or his properly authorized agents, limited by the particular duties intrusted to them.

Wherever the word "Contractor" is used herein, it shall be understood to mean the person or persons or co-partnership or corporation entering into the contract as party of the second part.

#### SPECIFICATIONS.

D—

1—*Location*—The work covered by and included in these specifications is the excavation of that part of the Main Drainage Channel and the building of certain collateral works for the Sanitary District of Chicago, located between the west line of the Willow Springs road, in Section 32, and a point near the east line of Section 12, Township 38 North, Range 12, East of the Third Principal Meridian, in Cook County, Illinois. Beginning at the said west line of the Willow Springs road, the said part of the said Main Drainage Channel follows the Desplaines River Valley, being located north and west of the Illinois and Michigan Canal, approximately, as shown on the accompanying plans, marked "1," and as it shall be located by the Engineer. The total approximate length of the excavation is 32,500 feet, or about six miles.

2—*Sections*—For the purpose of conveniently designating different portions of

the work, and of dividing it into contracts, the said part of the Main Drainage Channel shall be divided into six sections, as follows:

Section A. Extending from the station designated 740 to the station designated 660.

Section B. Extending from the station designated 660 to the station designated 610.

Section C. Extending from the station designated 610 to the station designated 560.

Section D. Extending from the station designated 560 to the station designated 510.

Section E. Extending from the station designated 510 to the station designated 460.

Section F. Extending from the station designated 460 to the station designated 415.

3—*Grade*—The grade line of the bottom of said Main Channel at the station designated 740, shall be at an elevation of 24 feet below the datum established by the Illinois and Michigan Canal Trustees in 1847, and shall rise thence with a uniform slope at the rate of 0.03 of a foot vertical to 1,000 feet horizontal to the end of the excavation at station 415, where it shall have an elevation 23.03 feet below datum.

The Sanitary District reserves the right to change said grade by raising or lowering it, or by increasing or decreasing the slope, thereby increasing or decreasing the amount of excavation; provided that said change shall in nowise affect the terms of this contract as to price, or entitle said contractors to any compensation additional to the rate fixed by this contract, or render the Sanitary District liable for any damages whatsoever, direct or indirect. Provided further, that the said change shall in no place affect the grade by an amount exceeding four feet; and that the Sanitary District shall notify the said contractor of any such change before any portion of said channel shall have been finished in conformity to the grade as hereinbefore specified.

4—*Cross Section for Walled Channel*—The bottom of the finished channel from Station 740 for a distance of 2,700 feet, more or less, shall have a width of 160 feet in the clear. The sides of the said length of channel shall be walled above the rock, and the part of the sides that come in rock are to be kept vertical and worked out with a channeling machine from top to bottom, the channels being cut ahead of the blast-

ing. In doing this the bottom of each cut of the machine is to be made to a uniform level above the grade, and each succeeding one offset six inches from the one just preceding. The contractor will be allowed to work the rock in one or two stopes, at his option, so far as concerns the main portion of the width of the channel, but in case he elects to work the face in stopes having a greater height than the reach of the channeling machine in depth, then the blast holes are to be so disposed as to effectually prevent any blast from breaking or shattering the rock beyond the sides of the prism of the channel, which are to be left as smooth and solid as can be obtained with a skillful and proper use of a channeling machine.

In determining the width of the channel at the top of the rock, the necessary offsets made by the operation of the machine are to be allowed for. Provided, that where the depth of the rock does not exceed twelve feet, there shall be but one reach or cut of the channeling machine made, and that where its depth is over twelve feet, there shall be but two cuts made.

The earth for the walled channel shall be so excavated as to leave a berm on top of the rock equal to three-eighths ( $\frac{3}{8}$ ) of the depth of the rock surface below a level of five feet above datum; provided, that the berm shall in no event be less than five feet; and, provided further, that should any portion be entirely in earth, the additional width at bottom shall conform to the above rule. In all cases, the earth shall be taken out with the least slope which it is found can be safely maintained until the retaining walls are built, and as may be directed by the Chief Engineer from time to time.

5—*Retaining Walls*—The sides of the 160 foot channel above the rock are to be walled with dry rubble masonry as soon as practicable after the channel is excavated.

If the bottom of the channel is in earth or glacial drift, the retaining walls shall be founded upon a footing made in a trench dug not less than one foot below grade, and as much deeper as may be directed by the Engineer, said footing course to project twelve inches beyond the face of the wall. If the bottom of the channel is in rock, the retaining walls are to be founded

upon the surface of the rock. Before beginning the construction of the wall, the surface of the rock is to be cleared of earth and foreign substances, and all loose and soft rock is to be removed for the full width of its base, that the wall may be founded upon a clean, solid stratum. If this stratum of natural rock inclines towards the Main Channel, with such an inclination and in such a manner as, in the opinion of the Engineer, to render the footing of the wall liable to slip on the same, then the contractor shall excavate the top surface of the rock parallel with and beneath the proposed wall in accordance with the directions of the Engineer, so as to effectively remove all liability of slipping. The walls in all cases are to be built to a height of five feet above datum. Their thickness at the top shall be four (4) feet, and at the bottom they shall have a thickness equal to one-half of their total height; provided that their thickness at the bottom shall never be less than their top thickness plus their total batter. At no point is their thickness to be less than one-half their height. The back of each wall is to be built in vertical planes with offsets, as shown on plans marked "3".

The bottom of the walls shall be fair with the sides of the channel. The tops of the walls on different sides of the channel are to be 83 feet from the center line of the channel, making a distance apart in the clear 166 feet, or otherwise, as directed by the Engineer.

The retaining walls are to be built of stone taken out of the excavation, those of the larger size and most regular rectangular shape being selected for the faces and for main binding stones; the face of each wall to be laid true to line, the stones being scabbled and carefully placed in a firm position on their natural quarry beds without the use of spawls or small stones in their joints. The walls are to be laid in courses not less than twelve inches nor more than thirty inches in thickness, no stone being used in the face less than twelve inches in thickness, and whose depth and width is less than twice its thickness, each course being carried through the whole thickness of the wall before another course is begun. In laying each course the larger stones are to be carefully placed in position, covering the whole surface of the wall in such manner as to break joints with



the larger stones of the preceding course, thereby thoroughly binding the wall into a solid mass; all spaces between the larger stones to be filled with smaller ones, which shall be reduced to such size with a hammer that all the larger interstices and uneven places shall be entirely filled, and an even and uniform bed prepared for the succeeding course. Only selected stones of a size sufficiently large to cover the whole thickness of the wall are to be used for the top course.

The spaces between the back of the walls and the slope of the excavation are to be filled by the contractor with broken rock or gravel taken from the excavation. The surface of the back filled material, when finished, to be inclined toward the wall at the rate of one vertical to ten horizontal, unless otherwise directed by the Engineer. Where the Main Channel runs through depressions of any kind which are lower than the top of the walls, the whole space shall be filled from the retaining walls to the sides of the depressions.

6—*Cross-Section for Unwalled Channel*—From a point at or about the Station designated 713 to the station designated 415, the sides of the channel are not to be walled, the channel having a cross-section, as shown on plan "4".

Where the bottom of said channel is wholly in earth or glacial drift, it is to have a bottom width of 210 feet, except for that portion of Section "F" east of the rocky stratum at Summit, for which the bottom width is to be 100 feet; the sides being excavated with a slope of two horizontal to one vertical, to a height of 25 feet above grade; thence to the natural ground surface they are to have a slope of one and one-half horizontal to one vertical. Where the bottom of the channel is wholly or partly in rock the specified width and slopes are to apply to the determination of the cross-section above the rock; the rock itself being excavated with side slopes of one half to one, the upper edges of the rock slopes being the lines of intersection of the planes of true slopes above the rock with its surface.

The rock for the unwalled channel is to be excavated without the use of a channeling machine, the bottom of the channel being taken out to the true grade for the whole width. The sides and upper edge

of the rock excavation to be left free from all sharp and ragged projections, as may be directed by the Engineer. Whenever the unwalled channel passes through the river bed, or a depression of any kind having an elevation of less than 10 feet above datum, said river bed or depression is to be filled evenly to said elevation of 10 feet above datum for the whole length of said river bed or depression from the slope of the channel to the main spoil bank.

7—*Connection of Walled and Unwalled Channel*—The walled part of the channel is to join the unwalled part by a gradual enlargement, as shown on plan "5". The retaining walls being spread so as to increase the bottom width of the channel to 210 feet in a distance of 125 feet. From this point to the intersection with the slope of the unwalled portion of the channel dry rubble retaining walls and slope paving are to be extended in the manner represented on said plan "5", and as may be directed by the Engineer.

8—*River Diversion*—In Sections A, B, C, E and F, the contractor is to change the course of the Desplaines river within the limits of the right of way, in the manner shown on plan "1".

The Diversion Channel in each case is to be excavated to the grade shown on plan "2" and to a width of 200 feet, with slopes of one to one. All the material from the excavation in each section is to be wasted on the south side of the new river channel, except such as is used in levees as hereinafter specified. That portion of the River Diversion Channel in each respective section is to be classed as belonging to that section.

9—*Clearing and Grubbing*—The contractor will be required to remove all trees, stumps, buildings, fences or other incumbrances, except such buildings as the Sanitary District may elect to retain, within 200 feet of the center line of the channel, or that may be in the way of any collateral or subsidiary work herein specified. All such material of value shall be the property of the contractor, and all worthless material shall be disposed of as directed by the Engineer. The cost of this work shall be included in the prices for excavation as hereinafter stated.

10—*Levees*—The said contractor in entering upon the work provided for in this con-



tract, shall, as directed by the Engineer, build levees as shown on plans, "1" and "4," as follows: Throughout the whole length of Sections A, E, C and D, a levee shall be built, about 50 feet south of the Desplaines River, as finally determined by the changes hereinbefore specified, and parallel therewith. It shall not be less than 20 feet wide on top and is to be built to a height of 20 feet above datum, with slopes of  $1\frac{1}{2}$  to 1. Throughout Sections E and F said levees shall be continued on the south side of the new river channel and 120 feet therefrom, measured to the toe of the slope, joining the Chicago, Santa Fe & California Railway grade east of the railway bridge over the Desplaines River. Said levee for each section, after the River Diversion shall have been completed, is to join with the levees for adjacent sections.

Should the Sanitary District so elect, the contractor is to build a levee on the north side of the new river channel beginning with the high ground on the east end of Section D, extending throughout Sections E and F, and joining the high ground north of the Chicago, Santa Fe and California Railway and west of the Desplaines River. Said levee to be built parallel with the new channel and 120 feet north of the same, measured to the foot of the slope. Said levee to be 20 feet wide on top, with slopes of  $1\frac{1}{2}$  to 1 on the outside, and 2 to 1 on the inside. Its grade to be 20 feet above datum at its lower end, and is to rise thence with a uniform grade to the Chicago, Santa Fe & California Railway, when its elevation is to be 24 feet above datum, and thence it is to rise to a height of 25 feet above datum at its upper end. On the outside of said levee a ditch three feet deep and six feet wide on the bottom, with slopes of  $1\frac{1}{2}$  to 1, is to be cut.

The contractor for Section F is to build a levee along the east side of the Desplaines River, extending from the Chicago, Santa Fe & California Railway northward for a distance of about 3,200 feet, joining the high ground on the east of the Desplaines River. It is to be 20 feet wide on top, with slopes of  $1\frac{1}{2}$  to 1 on the outside, and 2 to 1 on the inside. Its grade at the said railway is to be 24 feet above datum, and it is to rise thence with a uniform grade to its north end when the elevation of the grade is to be 26 feet above datum. At some point in said levee, as may be directed by

the Engineer, the contractor is to leave an opening for an overflow weir.

That portion or those portions of the above specified levees falling within any section are to be classed as belonging to that section.

Said contractor shall build all or any levees, in addition to that specified, which may be necessary to protect the work provided for in this contract, during the progress of the same. And should flooding occur either before or after the building of any such levees, or before or after the building of any levee specified herein, the said contractor is to pay and sustain any and all expenses and damages to which he may be put because of such flooding.

Any levee built by said contractor, either in accordance with the terms of this contract, or for his own purposes in executing said contract, may be made of material taken from the River Diversion Channel, or the Main Drainage Channel, in which case the contractor will be paid therefor as excavated material, as hereinafter provided, or at the option of the contractor they may be built of borrowed material, in which case the work is to be done at the cost and expense of said contractor, except that the contractor will be paid for any material entering into the levee north of the Desplaines River, and below the Chicago, Santa Fe & California Railway, which it may be found necessary to borrow; it being understood that the contractor will be required to use the material from the River Diversion Channel for said levee only so far as it lies adjacent to said channel. The contractor will also be paid for all material entering into the levee on either side of the river above the said railway.

11—*Disposition of Material*—The contractor is to dispose of all the material from the excavation of the channel, at his own expense, in waste banks located as shown upon plan "1," except such as is required for roadways, levees, etc., as hereinbefore and as hereinafter specified. The material from each section being deposited within the limits of that section and within the boundaries for waste banks as shown on plan "1." Said material to be so deposited in said waste banks that the top thereof shall be brought to an even grade at such height as is necessary to include all the material that is to enter into the same; provided that said waste banks shall not be

of less height when completed than 30 feet above datum, and that the material shall be so deposited as to form banks of substantially equal width throughout, except as shown on plan "1"; and, provided, that the foot of the inner slope of the waste bank along the walled part of the channel shall not be nearer to the edge of the Main Channel than 50 feet, and that for the unwalled part in Section "A" it shall not at any point be nearer than 100 feet, measured at an elevation of 10 feet above datum; and that the foot of the outer slope of all waste banks shall not approach the margin of the new or old river channel as established by the Engineer closer than 25 feet; and that throughout Sections E and F it shall not approach nearer than 120 feet.

12—*Drainage*—The contractor is to provide all necessary pumping machinery and is to operate the same at his own cost and expense during the time of excavation, and until the whole work is fully completed and inspected, as provided for in other sections of this contract. The contractor shall dispose of any water pumped in such manner as not to interfere with the operation of other contractors for the Sanitary District.

13—*Classification of Material*—All material excavated under the provisions of this contract is to be classified under one or the other of two heads, viz: "Glacial drift" and "solid rock."

Glacial drift shall comprise the top soil, earth, muck, sand, gravel, clay, hard-pan, boulders, fragmentary rock displaced from its original bed, and any other material that overlies the bed rock.

Solid rock shall comprise all rock found in its original bed, even though it may be so loosened from the adjacent underlying rock that it can be removed without blasting.

14—*Quantity of Material*—A profile of the surface of the ground made approximately on the center line of the Main Channel, and also of the supposed surface of the bed rock is shown on plan "2". These profiles, though believed to be reasonably correct, do not purport to be absolutely so, and are only presented as approximations, as is also the schedule of quantities attached as an appendix hereto. The contractor is to take all risk as to variations of the total quantity of material

excavated, as well as the relative amount of glacial drift and solid rock.

15—*Highways*—All public roads or railroads crossing or lying adjacent to the Main Channel shall be kept open and unobstructed during the progress of the work. No interference with any public road, railroad or canal will be allowed until a temporary or permanent road or channel has been provided, under the direction of the Engineer, which will permit safe and free travel and passage.

In Section "E" the contractor will be required to grade a roadway with material taken from the Main Channel, beginning at the north bank of the Illinois and Michigan Canal and extending—with the exception of the width of the Main Drainage Channel—to the proposed crossing of the Desplaines River as shown on plan "1," being located south of and approximately parallel with the Riverside and Summit highway. It is to have a width of 80 feet on top, and is generally to be built to a height of 30 feet above datum with side slopes of  $1\frac{1}{2}$  to 1, and is to slope with a fall of 3 in 100 to the level fixed for the bridge over the Desplaines River. Said roadway to be built in such proximity to the Illinois and Michigan Canal, the Main Drainage Channel, and the Desplaines River as may be directed by the Engineer.

North of the Desplaines River the contractor will be required to grade a bridge approach with material taken from the river diversion channel, corresponding in height and width to the roadway as specified for the Riverside and Summit highway, and in height to the bridge. Said approach being built with an ascent of 4 in 100.

16—*Extension of Spoil Bank*—In Section "F" the contractor will be required to extend the waste bank with its normal height north of and parallel with the Riverside and Summit highway, as shown on plan "1," to within 100 feet of the bank of the bank of the Main Channel.

17—*Bridges and Structures*—The Sanitary District reserves the right to enter upon the said Main Channel and right of way at any time or place, after or before the excavation has been completed, for the purpose of erecting, or preparing for the erection, of any bridge or bridges, or the building of any road or other structure,



provided that such work of erection or preparation therefor shall not interfere with the contractor in carrying out the provisions of this contract. To this end the contractor shall make, or allow the Sanitary District to make, at the expense of said Sanitary District, such changes in railroad tracks, buildings or structures used by him, as will not interfere with the operations of said contractor, and that, in the opinion of the Engineer, are necessary to the accomplishment of the purpose in view.

Said contractor is to make all necessary excavations in or adjacent to the Main Channel, and do all necessary grading, as directed by the Engineer, that may that may be needed for the building of any kind of structure which the Sanitary District may wish to erect, and he is to be paid therefor at the rates hereinafter given for the Main Channel.

18—*Explosives*—The contractor is to furnish all explosive compounds for blasting the material provided to be excavated under this contract; and, whereas, the storing, handling and use of so large an amount of explosive material requires the utmost care and discrimination, it is therefore understood and agreed that the said contractor shall arrange for the storage of all explosive materials at a distance of not less than 600 feet from the work, or from any other magazine, or from any dwelling occupied for a habitation, and that not more than 5,000 pounds shall be kept in one place. It is further understood and agreed that said explosive material shall in no case be brought onto the work except when needed for the purpose of charging the blast holes, and then only in such quantity as is needed for the particular work in hand, and that none but skilled and careful men shall be employed in the handling or use of said explosives, and that no liquid explosive shall be used.

It is further understood and agreed that the ground surrounding all magazines shall be kept free of vegetable or combustible material for a radius of one hundred feet, and that their walls shall be made bullet proof, to a height of one foot above the contained explosives, and that in no case shall they be made of brick or stone. It is also understood and agreed that such signals of danger, as may be directed by the Engineer, shall be given or displayed

before the firing of any blast, and that the said contractor shall conform his acts to and obey all rules and regulations relative to the handling of explosives and the firing of blasts for the protection of life or property, which may be made by the Engineer from time to time.

19—*Measurement*—Measurement for all excavated material will be made in excavation by the cubic yard of twenty-seven cubic feet, based upon the survey and cross-section notes of the Engineer.

All "Glacial Drift" excavated under the terms of this contract, or by the direction of the Engineer, whether in or out of the Main Channel, will be included in the measured quantities; provided that "glacial drift" taken out beyond the sides, or below the bottom of the true prism of the Main Channel, or of any river diversion channel, will not be included in the measured quantities, unless in the opinion of the Engineer it is found that the material is of such a nature that the channel cannot be maintained of the specified cross-section, in which event all material which it may be found necessary to remove to obtain stability will be included in the measured quantities.

"Solid Rock" excavated within the limits of the dimensions and grade of the Main Channel, or of any river diversion channel, or for the placing of any bridge or other structure, as hereinbefore specified, or that shall be taken out by the direction of the Engineer, shall be included in the measured quantities; provided, that nothing will be included for rock that comes out below grade in the excavation of any channel.

"Retaining walls" will be measured by their net cubical contents, as specified.

The yard prices given herewith are to include all work herein specified as clearing and grubbing, levees for protection, pumping, roadways for working, back filling of retaining walls, and generally all work and material found necessary in prosecuting this contract.

20—*Extra Work*—All claims for extra labor or material furnished by the contractor, or for damages from any cause whatever, must be reported to the Engineer at the time such labor or material are furnished, or such damages occur, and they must also be presented to him in writing at



the end of the month; provided that nothing shall be paid for as extra work that can be classified under any of the heads upon which prices are fixed by this contract.

Whenever work is required to be done which is not now contemplated or covered by the prices hereinafter given, the Engineer shall fix such prices for the work as he shall consider just and equitable, and the contractor shall abide by such prices; provided he enters upon such work with full knowledge of the prices so fixed by the Engineer, but if the contractor declines executing said work at the prices fixed by the Engineer, then the Sanitary District may enter into contract with any person or persons for its execution the same as if this contract had never existed; and if extra work, or work not provided for in this contract, is performed by the contractor before prices have been fixed for such work, then the Engineer shall estimate the same at such prices as he shall deem just and reasonable, and his decision shall be final, and the said contractor shall accept of said prices in full satisfaction of all demands against the Sanitary District for said extra work; provided, that if the extra work done under this contract is of such a nature, being distinct from other work being done by said contractor, that the actual cost of the same can be determined, then the said contractor shall receive, and the Sanitary District shall pay, in full satisfaction of the same, the actual cost of the work with fifteen per cent added; provided, further, that nothing shall be deemed extra work which can be measured or estimated under the provisions of this contract.

**21—Responsibility of Contractor**—All the work provided for in this contract is to be done under the direction and supervision of the Chief Engineer and his properly authorized agents. The contractor is to be guided by the lines, stakes, marks and grades given by them, and is to carefully preserve the same as far as possible during the progress of the work, and is to furnish all needed facilities, without charge therefor, to enable the Chief Engineer to properly give lines and grades and to measure the work from time to time.

All work will be subject to inspection by the said Engineer and his said agents, and if not in accordance with the requirements

of this contract it is to be made good by the contractor.

The contractor will be responsible for the entire work until completed and accepted by the Sanitary District. The contractor will be required to give his personal attention to the fulfillment of this contract and to the execution of the work. He is to keep the same under his control, and will not be allowed to sub-let all or any part of it; it being distinctly understood and agreed that the sub-letting of the work covered by this contract, or any part thereof, shall, after 30 days' notice, work a forfeiture of the contract at the option of the Sanitary District.

The contractor will not be allowed to assign by power of attorney, or otherwise, any portion of the moneys that may become due through the workings of this contract. In case the contractor fails to comply with the provisions of this contract as to progress and character of work, he shall be duly notified in writing; and thirty days after the giving of said notice the party of the first party may declare this contract forfeited, if there is substantial failure to comply with the provisions.

**22—Changes in Plan**—In addition to the reservations hereinbefore made, the Sanitary District reserves the right to make alterations in the line, grade, plan, form, dimensions, or material of the work herein provided for, either before or after the beginning of construction; provided, that if alterations are made the general character of the work as a whole is not thereby changed. If such alterations diminish the quantity of work to be done they shall not constitute a claim for damages, or for anticipated profits on the work that may be dispensed with; if they increase the amount of work, such increase shall be paid for according to the quantity of the work actually done and at prices and rates established for such work under this contract. Notice of any change of plan must be given the contractor in writing. And it is expressly agreed that no alterations or additions or extra work are to be paid for unless directed in writing.

**23—Tools**—The contractor is to furnish all the tools of every kind and description, including pumps, cars and track necessary to the full and complete carrying out of this contract, and, on completion of the

work, is to remove all tools, buildings and material of all kinds from the right of way of the Main Drainage Channel.

24—*Precautions*—Whatever precautions may be necessary to render any portion of the work more secure in any respect, or to decrease the liability of accident from any cause, or to avoid contingencies which are liable to delay the completion of the work, shall be taken by the contractor.

25—*Workmen*—The contractor shall employ competent foremen and laborers, and shall discharge, at the request of the Engineer, any incompetent or unfaithful men in his employ. None but men expert in their respective branches of work shall be employed where special skill is required.

E—

*Damages*—If any damages shall be done by the contractor, or by any person or persons in his employ, to the owner or occupants of lands or to any property adjoining, or in the vicinity of the work herein contracted to be done, or to a neighboring contractor, the Engineer shall have the right to estimate the amount of said damage, and to cause the Sanitary District to pay the same to the said owner or occupant, and the amount so paid for such damages shall be deducted from the money due said contractor under this contract.

Said contractor covenants and agrees to pay all damages for any personal injury sustained by any person, growing out of any act or doing of himself or his employes, that is in the nature of a legal liability, and he hereby agrees to indemnify and to save the Sanitary District harmless against all suits or actions of every name and description brought against the said Sanitary District for or on account of any such injuries or such damages received or sustained by any person or persons by or from said contractor, his servants, agents, or employes, in the execution of said work; or by or in consequence of any negligence in guarding the same; or by or on account of any act or omission of said contractor, his agents or employes; and the said contractor further agrees that so much of the money due to him, under and by virtue of this contract, as shall be considered necessary by the Board of Trustees of the Sanitary District, may be retained by the said Sanitary District until such suit or claim for damages, as afore-

said, shall have been settled, and evidence to that effect furnished to the satisfaction of the said Board of Trustees.

F—

*Sanitary District Law*—The said contractor hereby agrees to carry on all the work provided for in this contract, in strict conformity to the requirements of the law under which the Sanitary District of Chicago is organized, entitled "An act to create Sanitary Districts and to remove obstructions from the Desplaines and Illinois Rivers," approved May 29, 1889, in force July 1, 1889, which provides in Section 11, among other things, that "No person shall be employed on said work unless he be a citizen of the United States, or has in good faith declared his intentions to become such citizen. In all cases where an alien after making his declaration of intention to become a citizen of the United States shall, for the space of three months after he could lawfully do so, fail to take out his final papers and complete his citizenship, such failure shall be *prima facie* evidence that his declaration of intentions was not made in good faith. And that eight hours shall constitute a day's work."

G—

*Time*—The contractor agrees to begin work on the Main Levee and River Diversion Channel within fifteen days after the execution of this contract, weather permitting, or as soon after the expiration of the fifteen days as the Sanitary District shall have acquired title to and possession of the necessary right of way, and shall have notified the said contractor to begin; and he agrees to begin work upon the Main Channel within thirty days after the execution of this contract, subject to said limitations. He agrees to carry it on at such points, and in such order of procedure as the time and manner of procuring the said right of way may render necessary. Provided, that the said contractor agrees not to proceed to the execution of any part of the work until he shall have been notified by the said Sanitary District to proceed therewith.

The work of River Diversion and the building of the levees hereinbefore specified to be built, are to be prosecuted with all possible diligence and completed as early in the year 1893 as the weather and stage of the river shall permit; at any rate,



they are to be completed on or before December 1st, 1893.

All the work provided to be done under this contract shall be completed and ready for inspection on or before the 30th day of April, of the year 1896; provided, that if for any reason the contractor is not permitted by the Sanitary District to begin the main excavation of the said channel on or before the 1st day of April, 1893, then the said Sanitary District agrees to extend the time for the completion of this contract as much beyond the time specified for its completion as the time of beginning the main work shall be subsequent to the 1st day of April, 1893.

The work done each month shall not be less than such proportion of the whole work as one month bears to the total number of months agreed upon for the completion of the work to be performed under this contract, provided that the first four months after notice to begin shall be considered as one month, and the last two months before date of completion, as one month; and, provided further, that this rate shall not be required if at any time the aggregate work done exceeds the total proportion due to the time that has passed since notice to begin work; and always provided that the Sanitary District shall not be obligated to make payment in excess of the above monthly proportion.

#### H—

*Prices*—In consideration of the said work being carried on and completed in time and manner as hereinbefore specified the said party of the first part agrees to pay to the said party of the second part the following amounts for each kind of work, respectively, and the said party of the second part agrees to receive and accept the same as full compensation for the performance of the work, including the furnishing of the material, tools, labor, etc., to wit:

a—For each cubic yard of “glacial drift” excavated, as per the terms of this contract, the sum of no and  $\frac{27}{100}$  dollars ( $\$0.\frac{27}{100}$ ).

b—For each cubic yard of “solid rock” excavated, as per terms of this contract, the sum of no and  $\frac{70}{100}$  dollars ( $\$0.\frac{70}{100}$ ).

c—For each cubic yard of “dry-rubble masonry” measured in the (actual geometric contents) the sum of ——— dollars (\$——).

#### I—

*Time and Manner of Payment*—It is agreed by the party of the first part, that on or before the 10th and 25th days of each month, during the progress of the work, and subject to the provisions hereinbefore specified under the head of “Time,” payment will be made to the said party of the second part to the amount of  $87\frac{1}{2}$  per cent of the contract price of the approximate amount of work done during the previous half month, upon written certificates from the Engineer that such approximate amount of work has been done during that period,  $12\frac{1}{2}$  per cent being reserved until the completion and acceptance of the whole work.

#### J—

*Grading of Prices*—Since the nature of the material to be excavated under the provisions of this contract is such that the portion lying nearest the surface can be more cheaply excavated than that lying near the bottom, it is hereby agreed by the said party of the second part that if his manner of conducting the work is such that at the time of making any progress estimate a markedly greater proportion of the top material has been excavated than of the bottom material, then the Engineer shall, in making such estimates, ascertain what amount that has been excavated up to that time of any particular class of material lies above, and what below, a horizontal plane dividing the mass of said class of material into equal parts; and if the upper portion exceeds the lower, then the total amount of material found to have been excavated previous to the time of making the estimate shall be reduced by 10 per cent of said excess, and estimates or certificates issued on the remainder, with the percentage deductions provided for in the preceding Section 1.

#### K—

*Certificate*—On all the work provided for in this contract being completed, in accordance with the contract, and to the full satisfaction of the Chief Engineer, and on its being inspected by him and a certificate made by him setting forth the amount of said work, and that the said work has been completed, the said party of the first part agrees to pay to the said party of the second part the amount shown to be due to said second party by the said certificate of



the said Chief Engineer, including the 12½ per cent reserve.

L—

*Failure to Complete*—It is further agreed by the said party of the second part that if the work to be done under this contract shall be abandoned, or if it shall be assigned by him, or if he loses control of the work from any cause, excepting acts of God and the public enemy, or if the rate of progress is not such as to insure its completion within the time specified, or if at any time the Engineer shall be of opinion, and shall so certify in writing to the said party of the first part that said work or any part thereof is unnecessarily and unreasonably delayed, or that the contractor is wilfully and persistently violating any of the conditions or covenants of this contract, or is fulfilling said contract in bad faith, the said party of the first part shall have the power to notify said contractor to discontinue all work, or any part thereof, as may be designated by said party of the first part, and the said party of the first part shall thereupon have the power either to complete said work by contract or to employ such men and teams, and to obtain such machinery, implements and tools, and to purchase such material as the said Engineer may deem necessary to complete the work herein described, or any part thereof. And in so doing said Engineer may use such tools, implements and materials as may be found upon the line of said work. The cost of doing such work by the said Engineer shall be charged to the said contractor, and the expense so charged shall be deducted and paid by the said party of the first part out of such moneys as may be due, or may at any time thereafter become due to said contractor, under and by virtue of this contract, or any part thereof, so far as the same shall suffice therefor, and the balance, if any, shall be paid by said contractor on demand.

M—

*Failure to Pay Laborers* — If at any time during the progress of said work the said contractor shall fail or neglect to pay for labor performed or material furnished upon said work, for ten days after it shall have become due, then the party of the first part shall have power to pay for such labor or such material out of any money or moneys that may be due to said contractor, and

said amount so paid shall be retained out of any money due or to become due to said contractor.

In any such case the party of the first part is hereby authorized and empowered by the said party of the second part to ascertain the amount or amounts, due or owing to any laborer or laborers, from said contractor, in such manner and upon such proof as it may deem sufficient, and without giving any notice of such proceedings to said contractor, and the amount or amounts so found by the said party of the first part to be due and owing to said laborer, or laborers, shall be final and conclusive evidence as against said contractor, and may thereafter be paid over by the said first party to such laborer or laborers.

N--

*Final Payment*--The said party of the second part further agrees that he shall not be entitled to demand or receive final payment for any portion of the aforesaid work or materials except in the manner set forth in this agreement, nor until each and all of the stipulations hereinbefore mentioned are complied with, and the said Chief Engineer shall have given his certificate to that effect; whereupon the said party of the first part will, at the expiration of thirty (30) days after such completion and the delivery of such certificate, pay, and it hereby binds itself to pay the said party of the second part, in cash, the whole amount of money accruing to said second party under this contract, excepting such sum or sums of money as may be lawfully retained under any of the provisions of this contract hereinbefore set forth. Provided, that nothing herein contained shall be construed to affect the right hereby reserved of the said party of the first part to reject the whole or any portion of the aforesaid work should the said certificate be found to be inconsistent with the terms of this agreement or otherwise improperly given.

Q—

*Health Regulations*—Said party of the second part agrees to introduce and enforce among ..... employes, such regulations in regard to cleanliness, the care of dwellings and premises and the disposition of garbage and offal, as shall conduce to their health and tend to prevent the inception and spread of contagious and infectious diseases among them, to make pro-

vision for an ample supply of suitable drinking water, and to take such means as shall effectually prevent the creation of a nuisance on any part of the right of way of said Sanitary District, or adjacent thereto.

*Note*—It is understood and agreed that the foregoing printed form of contract and specifications is a true copy of the form of contract and specifications for the work upon Section E entered into by first party with Daniel D. Streeter and William Kenefick, doing business under the firm name and style of Streeter & Kenefick, bearing date of January 31, 1893; but that by a supplemental agreement between said parties of November 1, 1893; a copy of which is hereto attached, the westerly termination of said Contract Section was changed and now remains fixed at the westerly boundary line of the right of way of the Chicago & Calumet Terminal Railway Company instead of at Station 510 as specified in said contract, and the easterly termination of said section was changed and now remains fixed at the westerly boundary line of the Summit and Riverside highway as now located and in use, instead of at Station 460 as specified in said contract.

And second party hereby covenants and agrees that in consideration of the payments herein provided for they will do all the work provided for herein, and follow out all the terms and provisions hereof, so far as same have not already been executed and carried out by said Streeter & Kenefick, to the end that all the work remaining to be done on said Contract Section E, under said contract with said Streeter & Kenefick, may be carried out and completed by them at the rates herein specified.

By an order of the Board of Trustees of first party (page 1403 of Proceedings) the location of the levee on the southerly side of the River Diversion was changed. This levee has not yet been completed, and the contractor herein will be required to complete same not later than August 1, 1895. The work of raising and strengthening the inner levee for the protection of the work upon the Main Channel must be entered upon at once and pushed to completion at the earliest possible date.

As soon as the completion of the outer

levee, provided for in the original contract, is assured, the surplus material from the Main Channel may be wasted over the area between the present spoil area and the said levee, subject to the direction of the Chief Engineer as to height and uniformity of surface.

By order of the Board, also (page 1439 of Proceedings), a change of grade in the Main Channel was made, fixing the grade of the bottom of same, between Willow Springs and Bridgeport, at one (1) foot in forty thousand (40,000), and also fixing the elevation.

It is especially covenanted and agreed that the time from the date of this contract to November 1, 1894, shall be considered as one month; and October 1, 1894, is hereby fixed as the date from which all progress estimates shall be made.

It is also agreed that the monthly progress herein specified shall be estimated upon the basis of cost, that is to say, such an amount of work shall be done each month as shall earn for the contractor a sum equal to the quotient of the aggregate approximate cost of the different kinds of work herein provided for, at the prices herein specified, divided by eighteen, the number of months within which all said work is to be executed. It is especially covenanted and agreed that if second party should at any time fail to make the monthly progress herein provided for, or should the progress made by them at any time during any month be such that in the opinion of the Chief Engineer of first party they would be unable to make the required progress during that month, then in that case it shall not be necessary to await the end of the month, but said Engineer may immediately notify second party to discontinue all work or any part thereof as he may designate, and first party may at once, in such manner as it shall elect, re-let such work as has been so discontinued, and the cost of completing said work shall be borne by second party. The contractor shall pay the laborers employed by him promptly at regular intervals, and at least twice each month, and shall not pay said laborers in scrip, checks or other evidences of indebtedness, nor in any manner other than with lawful currency of the United States.

*Contractor's Bond*—The contractor shall furnish a bond in the sum of one hundred

thousand (\$100,000) dollars, with good and sufficient sureties, the same to be satisfactory to the Board of Trustees of the Sanitary District, conditioned for the faithful performance of all the terms and conditions of this contract, and should the sureties on said bond at any time fail financially, or be, in the opinion of said Board of Trustees, insufficient security, for the penalty of said bond, then, in that case they may, on giving ten days' notice thereof in writing, require said contractor to furnish a new or additional bond in the place of the bond so having become insufficient or worthless.

IN WITNESS WHEREOF: On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part have hereunto set their hands and seals.

All interlineations and erasures herein were made before the execution hereof," etc.

#### REPORT ON REQUISITION NO. 510.

Mr. Kelly, for the Committee on Engineering, presented a report from that Committee, accompanied by Requisition No. 510, for the Engineering Department, presented and referred to that Committee at the meeting held September 5, 1894 (page 2172 of the Proceedings), recommending that the same be allowed; and the report was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed and placed on file, the recommendation made therein concurred in, and Requisition No. 510, for the Engineering Department, allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendation made therein concurred in, and Requisition No. 510, for the Engineering Department, allowed.

The following is

#### THE REPORT:

“CHICAGO, Sept. 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to Requisition No. 510, for furniture and stationery for the Engineering Department, presented and referred to the Committee on Engineering at the meeting held September 5, 1894, (page 2172 of the Proceedings) your Committee respectfully report that they have considered said requisition and return same herewith, with the recommendation that it be allowed.

Respectfully submitted,

(Signed)

THOMAS KELLY,

WM. BOLDENWECK,

JOHN J. ALTPETER,

*Committee on Engineering.”*

(One ( ) enclosure.)

#### ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Kelly, the Board then adjourned.

THOS F. JUDGE,

*Clerk.*



September 19,]

—2219—

[1894.

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

SEPTEMBER 26, 1894.

#### OFFICIAL RECORD.

*Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.*

#### REGULAR MEETING.

The two hundred and fortieth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, September 26, 1894, at 2 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8) members, were present.

#### MINUTES.

The minutes of the regular meeting, held September 19, 1894, were approved as printed, on motion of Mr. Boldenweck, seconded by Mr. Kelly.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### *Construction Account—*

Griffiths & McDermott (Sec. 1, Sept. 15, 1894)	\$12,725 12
McArthur Bros. (Sec. 2, Sept. 15, 1894).....	11,427 50
Gilman & Co. (Sec. 3, Sept. 15, 1894).....	17,512 64
McArthur Bros. (Sec. 4, Sept. 16, 1894).....	9,055 20
The Qualey Construc- tion Co. (Sec. 5, Sept. 16, 1894).....	7,730 62
Mason, Hoge & Co. (Sec. 6, Sept. 16, 1894)	5,740 87
Mason, Hoge & Co. (Sec. 7, Sept. 16, 1894)	9,696 75
Mason, Hoge, King & Co. (Sec. 8, Sept. 16, 1894).....	12,034 75
Halvorson, Richards & Co. (Sec. 9, Sept. 16, 1894).....	9,958 55

E. D. Smith & Co. (Sec. 10, Sept. 16, 1894).....	\$14,700 00
Mason, Hoge & Co. (Sec. 11, Sept. 16, 1894).....	13,175 32
Mason, Hoge & Co. (Sec. 12, Sept. 16, 1894).....	10,193 53
Mason, Hoge & Co., (Sec. 13, Sept. 16, 1894).....	16 547 78
Smith & Eastman (Sec. 14, Sept. 16, 1894).....	12,280 63
Heldmaier & Neu (Sec. A, Sept. 15, 1894).....	22,670 15
Western Dredging & Improvement Co. (Sec. C, Sept. 16, 1894).....	4,746 64
E. D. Smith & Co. (Sec. D, Sept. 16, 1894).....	7,646 78
Ricker, Lee & Co. (Sec. F, Sept. 16, 1894).....	1 875 51
Gahan & Byrne (Sec. G, Sept. 16, 1894).....	3,318 03
Gahan & Byrne, (Sec. H, Sept. 16, 1894).....	920 35
Christie & Lowe (Sec. I, Sept. 16, 1894).....	6 488 12
Christie & Lowe, (Sec. K, Sept. 16, 1894).....	4,455 93
The Heidenreich Co. (Sec. L, Sept. 16, 1894).....	2,454 62
The Heidenreich Co. (Sec. M, Sept. 16, 1894).....	3,810 79
Hayes Bros., et al., (Sec. N, Sept. 16, 1894).....	1,358 44
McMahon & Montgomery Co., et al., (Sec. O, Sept. 16, 1894).....	6,063 75
Mason, Hoge & Co. (Sec. 6, Sept. 16, 1894, extra, special work, retaining embankment).....	520 00
Mason, Hoge & Co., (Sec. 7, dimension stone and rip rap work, Sept. 16, 1894).....	1,304 00
Heldmaier & Neu (Sec. A, extra work, completing levee, 692-710 and below 610, Sept. 15, 1894).....	1,684 80
Atchison, Topeka and Santa Fe R. R. Co. (Sec. F, rebuilding of bridges 5 and 4 at Summitt, Ill.).....	5,875 65
	<u>\$237,972 82</u>

## ENGINEERING DEPARTMENT.

F. Mayer & Co. (blue prints).....	\$45 61
Chicago Towel Supply Co. (towel).....	5 40
Patrick McGinnis, (gauge reading, August, 1894).....	10 00
E. Hastings, (gauge reading, August, 1894).....	10 00
Wm. Kirkham, (gauge reading, August, 1894).....	10 00
Geo. Brainard, (gauge reading, August, 1894).....	10 00
Mary Rusk, (gauge reading, August, 1894).....	10 00

Thos. T. Johnston (traveling).....	\$ 20 00
Alex. E. Kastl, (traveling).....	21 09
Chas. L. Harrison, (traveling).....	12 16
W. T. Keating, (traveling).....	15 37
E. L. Cooley, (traveling).....	9 37
Robert H. Cowdrey, (traveling).....	52 55
	<u>\$231 55</u>

## LAW DEPARTMENT.

Collins, Goodrich, Darrow & Vincent, (legal services).....	\$1,250 00
Collins, Goodrich, Darrow & Vincent, (expenses).....	54 00
Frank Vander Bogart, Clerk, Circuit Court, Will County, Ill. (appearance fee).....	10 00
Waukesha Hygeia Mineral Springs Co. (water).....	3 75
Geo. E. Dawson, (expense).....	164 87
J. L. O'Donnell, (traveling).....	25 00
U. W. Weston, (expense).....	200 00
	<u>\$1,707 62</u>

## POLICE DEPARTMENT.

Edward Hines Lumber Co. (lumber).....	110 11
Edward Williams, (expense).....	121 81
	<u>\$231 92</u>

Total.....\$240,143 91

Mr. Kelly, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 482, Law Department, (stationary).....	\$32 25
No. 1060, Clerical Department and General Account, (stationery).....	60 80

Total.....\$93 05



Mr. Kelly, seconded by Mr. Boldenweck, moved that Requisition No. 482, for the Law Department, and No. 1060, for the Clerical Department and General Account, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 482, for the Law Department, and No. 1060, for the Clerical Department and General Account, as read and shown above, allowed.

#### WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending September 22, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“CHICAGO, Sept. 26, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending September 22, 1894, as the same have been reported to me:

Engineering Department.....	137
Clerical Department.....	4
Law Department.....	7
Treasury Department.....	1
Police Department.....	48
Total employes.....	197

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

#### MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of August, 1894.

The same was read, and, by unanimous consent, was ordered printed and, with

accompanying classified statement, placed on file.

The following is

#### THE REPORT:

“CHICAGO, Sept. 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the reports of Divisions 1, 2 and 3, showing the detailed operations of the Engineering Department for the month of August.

The expenses for the month of August were as follows:

Pay rolls.....	\$ 14,127.24
Material.....	947.14
Contractor's estimates.....	549,817.77

Total for August.....\$564,892.15

I estimate the expenses of this Department for September will be \$525,000.00.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer.”

(Accompanied by classified statement.)

“CHICAGO, Sept. 19, 1894.

*Isham Randolph Esq., Chief Engineer:*

DEAR SIR:—I herewith submit my report of construction for the month of August, with the usual tabulated statements showing the amount of work done during the month, the average daily force employed and the condition of the work up to the 1st inst. Like the one preceding it, the past month has been an extraordinarily favorable one for making progress, and was generally improved.

Section O. Progress on this Section was somewhat retarded for want of sufficient right of way, at the same time the contract rating was exceeded by 51 per cent. The material excavated amounts to 96,000 cubic yards. Of this amount 74,700 cubic yards were handled with steam dredges and taken out into the lake with dump scows. The dredges worked 96 shifts of 10 hours each averaging about 780 cubic yards per day. The remaining 21,300 cubic yards were moved with dump cars and wheel scrapers, about 12,200 yards of which were placed in the levee west of Rockwell street, and 9,100 yards were used in filling low places east of Western avenue.

The plant consists of

Steam Dredges.....	3
Dump Scows.....	16

Tug Boats.....	4
Dump Cars and Track.....	49
Wheel Scrapers.....	40
Wagons.....	6
Plows.....	3

Section N. Is in about the same condition as stated in my last report. It is a dredge Section under contract to the same concern that is excavating Section O, and is not yet accessible for dredging operations. 20,500 cubic yards were excavated during the month, a part of which was loaded on wagons by manual labor and hauled away to fill up unimproved streets in the vicinity, and the balance was removed with wheel scrapers for making a levee along the north boundary of the right of way and for filling up low places. These two Sections (O and N) considered together, as they should be, show a deficiency of \$24,163.44 on the 1st inst., and but little progress can be expected until more right of way is procured.

The plant comprises :

Wheel Scrapers.....	20
Wagons.....	20
Plows.....	4

Sections M and L. The work on these two Sections (The Heidenrich Co.) is progressing in a very satisfactory manner. 93,200 cubic yards were excavated on these Sections in August, showing a monthly rating of 104 per cent for Section M, and 144 per cent. for Section L. The standing of these two Sections is about \$13,000 in excess of the contract requirement on the 1st inst. Of the above amount excavated 21,200 cubic yards were removed with wheel scrapers and a New Era Grader, and 72,000 yards were handled with Steam Shovels and Incline Conveyors. The latter worked 98½ days of 10 hours each, making an average of about 730 cubic yards per day.

Their plant is as follows :

Steam Shovels.....	4
Incline Conveyors.....	4
Steam Pumps.....	3
Wheel Scrapers.....	28
Drag Scrapers.....	14
New Era Grader.....	1
Large Dump Cars.....	6
Small Dump Cars.....	30
Wagons.....	8
Plows.....	2
Steam Hoists.....	1

Sections K and I. These two Sections (Christie & Lowe) continue to gain, both considered together averaging about 2 months each in advance of the contract rating. The contractors have been taking advantage of the fine weather by the

use of teams, graders and wheel scrapers for removing the top material, pending the completion of their machinery plant.

Their output for the month for Section K was 60,100 cubic yards or 131 per cent, and for Section I 111,400 cubic yards, equal to 245 per cent of the monthly rating—a total of 171,500 yards for both Sections. Of this amount 104,700 yards were moved with Graders, Wheel Scrapers, etc., and 66,800 yards with Steam Shovels, the latter averaging about 630 cubic yards per day.

The plant employed is

Steam Shovels.....	3
Truss Conveyors.....	3
Dynamos.....	3
New Era Graders.....	6
Wagons.....	38
Wheel Scrapers.....	8
Drag Scrapers.....	6
Plows.....	4
Steam Hoist.....	1
Steam Pump.....	1
Iron Dump Wagons.....	10

Sections H and G. A large force of men are at work upon the new self-loading conveyor referred to in my last report, with the expectation of having same in operation some time during the current month, though I hardly think it probable that the apparatus can be fairly tested within that time; meanwhile the contractors employed a force of teams and scrapers on Section H which removed 31,934 cubic yards, equal to 77 per cent. On Section G there was excavated 73,350 cubic yards, equal to 130 per cent, or an average monthly rating on both Sections of 107 per cent—\$2,040.65 more than the monthly requirement called for by the contract. The work on Section G was continued in the same manner as stated in my last report, the Section being \$24,097.66 in advance of the contract rating on the 1st inst.

The plant embraces :

Steam Shovels.....	3
Steam Pumps.....	2
Wheel Scrapers and Teams.....	60
Dump Cars.....	42
Belt Conveyor.....	1

Section F. A small team force removed 11,128 cubic yards between stations 447 and 456 during the first 22 days of the month. The two steam shovels worked alternately during the month picking up such material above the hard pan as the shovels will handle without blasting. The amount thus moved during the month was 27,455 cubic yards, a daily average of about 508 yards. Twenty-six days were lost in moving back, for re-



pairs, and in tying up either one or the other shovel. From appearances one shovel will probably be kept employed during the next three months cleaning up everything overlying the hard pan. The total output for the month was 38,583 cubic yards, which is equal to 115 per cent of the monthly rating. On the 1st inst. the Section is credited with \$16,781.30 in excess of the progress rating called for by the contract.

The plant includes:

Steam Shovels.....	3
Large Dump Cars.....	60
Locomotives.....	4
Steam Pumps.....	5

Section E. August 20th a small team force was put on the work, and on the 21st one small Pump was started, two more were put in operation on the 28th. On the 27th a small force commenced grading for steam shovel tracks but there was no evident intention of an earnest resumption of work.

Section D. The two steam shovels did very good work during the month, moving 66,813 cubic yards. The shovel at the east end of the Section was taken out of the pit for repairs on the 22nd. It was started again on the 27th, and after working a few hours was stripped and sent back to the manufactory and a new one ordered, pending its arrival their remaining shovel will be operated two 10 hour shifts per day. The contractors are continuing the use of an auxilliary force of teams, scrapers and graders whose output was 42,338 cubic yards, making a total of 109,151 yards for the month or 183 per cent, which places the Section \$21,773.26 ahead on the 1st inst.

The plant in operation is

Steam Shovels.....	2
Dump Cars.....	40
Steam Pumps.....	3
Locomotives.....	4
New Era Graders.....	3
Scrapers.....	50

Section C. Work on this Section has progressed in the usual manner, but showing a considerable improvement over the preceding month; the percentage being 122 per cent, against 105 per cent for the month of July. The total yardage for the month was 71,029, of which 39,943 was done with steam shovels averaging 493 yards per day; 13,880 by the Hydraulic Dredge averaging 289 yards per day of 10 hours, and the balance 17,206 yards was moved with teams.

The plant contains:

Steam Shovels.....	2
Locomotives.....	4
Dump Cars.....	40
Hydraulic Dredge.....	1
Steam Pumps.....	3
Dynamo.....	1
Scrapers.....	25

Sections A and B. These are still wet Sections, the work on which has thus far been confined to the use of Hydraulic Dredges. Low water and breaches in the settling basin delayed this work somewhat, though the output for the month on Section A was 133,943 cubic yards or 169 per cent. It is expected that about all the material adapted to this method of operation will be removed during the present month. Section B was practically completed in July, so far as the dredge work is concerned. During the month of August a levee was thrown across about the middle of the Section and pumping was commenced for the purpose of unwatering same and preparing for dry excavation. The work of filling in the trestle levee has been greatly delayed at the east end from the causes heretofore stated, viz: The unstable foundation upon which the trestle stands and the treacherous character of the material; still I hope to see the work completed by about the 15th of October with any degree of fair weather. 16,300 cubic yards were placed in the east end of the trestle by Heldmaier & Neu during the month. Arrangements have been made for hauling the material for this end of the work from Section C where it is excavated and loaded on cars without cost to the District. The trestle on the west end is more stable thus far and better progress is being made. 22,800 cubic yards were placed in this end of the levee by Griffiths & McDermott.

The present plant on these Sections is

Hydraulic Dredges.....	2
Steam Sluicer.....	1
Steam Shovel.....	1
Cars.....	25
Dipper Dredge.....	1
Barges with Dump Cars.....	2
Locomotives.....	2
Steam Pumps.....	2

Section 1. The output on this Section for the month was 57,000 cubic yards, equal to about 46 per cent of the monthly rating. Of this amount 12,300 yards were removed by teams, and 44,700 with steam shovels which averaged about 620 yards per day of 10 hours. The Contractors have not yet fairly got their work opened, but with the increased



plant and facilities which they are providing they should soon be up to time.

Their plant now calls for	
Steam Shovels (special pattern).....	3
Locomotives.....	4
Dump Cars.....	80
Steam Pumps.....	3
Wheel Scrapers.....	30

Section 2. 21,840 cubic yards were excavated with steam shovels and 23,238 yards were removed in small cars loaded by manual labor, making the total output 45,078 cubic yards, equal to 122 per cent of the monthly rating. A portion of the rock has been uncovered and two channeling machines installed; two cable ways for taking out the rock are also nearly finished, and the Section is in good condition.

The plant is composed of	
Steam Shovels.....	2
Dump Cars.....	119
Steam Pumps.....	2
Hoists and Inclines.....	2
Channelers.....	2

Section 3. The output on this Section for August is nearly double that of the preceding month and for the first time exceeds the monthly rating by 27 per cent. It is fully equipped with first class machinery and should henceforth hold its own. The yardage for the month is as follows: Glacial Drift 18,900 cubic yards; Solid Rock 33,000 cubic yards; total 51,900 cubic yards, amounting to \$35,636.64.

The plant embraces	
Steam Shovel.....	1
Air Compressor.....	1
Power Drills.....	8
Hoisting Engines.....	4
Dump Cars.....	27
Cable Ways.....	4
Channelers.....	8
Steam Pumps.....	3

Section 4. Four steam shovels were employed on this Section during the month yielding a total of 48,400 cubic yards which is equal to 121 per cent of the monthly rating—a small increase over the preceding month. This Section is well equipped and the maintenance of the steady gain of the past three months may be expected.

The plant comprises :	
<i>In Use.</i>	
Steam Shovels.....	4
Large Dump Cars.....	50
Small Dump Cars.....	30
Hoisting Engines and Inclines.....	3
Steam Pumps.....	2

### *Idle.*

Steam Pumps.....	3
Portable Boilers.....	2
Hoisting Engine.....	1
Wheel Scrapers.....	43
Dump Cars.....	200

Section 5. Shows a decided improvement over any previous month, the estimate for August returning 79,700 cubic yards of Glacial Drift and 1,300 cubic yards of Solid Rock, amounting to \$25,-662.50 or 154 per cent of the monthly rating. Now that the work is well opened so that the glacial drift, solid rock and retaining walls may all be carried along together, it is hoped that this Section will maintain the above rate.

The plant comprises :

### *In Use.*

Steam Shovels.....	3
Locomotives.....	5
Steam Hoists.....	2
Dump Cars.....	116
Channelers.....	2
Masonry Derrick.....	1
Steam Pumps.....	4

### *Idle.*

Masonry Derrick.....	1
Cars.....	43
Steam Drills.....	3
Steam Pumps.....	4

Section 6. Owing to the conditions mentioned in my report for July there has been but little improvement on this Section during the past month. It is probable that sufficient stripping will soon be done to enable the contractors to commence the rock excavation and retaining walls, which should largely increase the monthly estimates, and place the Section in full line of progress. The estimate for the month was 43,700 cubic yards or 44 per cent.

The plant consists of

### *In Use.*

Hydraulic Dredge.....	1
Cable Ways.....	2
Steam Shovels.....	3
Steam Hoists.....	3
Channellers.....	2
Dump Cars.....	30
Steam Pumps.....	4

### *Idle.*

Steam Hoists.....	3
Steam Drills.....	3
Dump Cars.....	33
Steam Pumps.....	3

Section 7. On the 1st of August this Section showed a deficiency of \$14,789.02. On Sept. 1st this deficiency was reduced to \$6,247.86. The quantities for August

were: glacial drift 9,000 cubic yards, solid rock 43,200 cubic yards, amounting to \$34,092.00 or 134 per cent—a gain of 28 per cent over the preceding month. A Cable Way and two Quarry Derricks have been added to their plant during the month, which I think is sufficient to sustain the requisite progress.

The plant now contains :

*In Use.*

Air Compressor.....	1
Hulett Derricks.....	2
Hulett Cantilever.....	1
Quarry Derricks.....	6
Steam Hoists.....	3
Cars.....	40
Channelers.....	7
Power Drills.....	9
Steam Pumps.....	9

*Idle.*

Hulett Cantilever.....	1
Steam Hoists.....	2
Steam Pumps.....	2
Cars.....	21
Channeler.....	1
Power Drills.....	3

Sections 8, 9, 10, 11, 12 and 13. As in the two preceding months these six rock Sections continue to move more than double their average requirement. Their respective percentages for the month of August are: 234 per cent, 260 per cent, 237 per cent, 167 per cent, 116 per cent and 218 per cent.

Section 14. The estimate on this Section gives 45,000 cubic yards of glacial drift and 14,200 cubic yards of solid rock, amounting to \$26,566.00 or 129 per cent under the old rating. The same disproportion in the relative quantities of glacial drift and solid rock appear again this month in a greater degree. The

Section is finely equipped with the exception of suitable appliances for removing the rock from the pit, and with the many successful appliances now in use for this purpose upon adjacent Sections it does not seem that there is any excuse for this deficiency. The appliances employed during the month for removing rock were 1 double Derrick which worked day and night (48 half shifts). The output being 7,800 cubic yards, an average of about 160 cubic yards per day; and 1 Steam Hoist and Incline which worked 17 days, yielding 6,400 cubic yards—an average of 376 yards per day.

The plant consists of

*In Use.*

Air Compressor.....	1
Boiler (50 H. P.).....	1
Double Derrick.....	1
Steam Hoist and Incline.....	1
Small Dump Cars.....	14
Channelers.....	6
Power Drills.....	10
Steam Pumps.....	4
Steam Shovels.....	2
Locomotives.....	3
Large Dump Cars.....	60

*Idle.*

Boilers 50 H. P. each.....	3
Steam Hoist and Incline.....	1
Power Drills.....	6
Small Dump Cars.....	18
Air Compressor.....	1

The total value of the work during the month is \$656,481.31 which is \$156,483.04 more than the average requirement of the contracts.

Respectfully submitted,

(Signed)

U. W. WESTON

*Supt. of Construction.*

STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE  
MONTH OF AUGUST, 1894 (MAIN CHANNEL).

SECTIONS.	Amount Done During August.	Average Monthly Requirement.	Deficiency for August.	Excess Over Monthly Requirement.	Per Cent. of Monthly Requirement.
O.....	\$20,160 00	\$ 13,373 30	.....	\$ 6,786 70	151
N.....	4,715 00	10,614 81	\$ 5,899 81	.....	44
M.....	6 488 30	6,255 02	.....	233 28	104
L.....	12,470 10	8,648 36	.....	3,821 74	144
K.....	15,025 00	11,490 55	.....	3,534 45	131
I.....	27,860 00	11,361 94	.....	16,488 06	245
H.....	9,260 86	11,966 83	2,705 97	.....	77
G.....	20,538 00	15,791 38	.....	4,746 62	130
F.....	9,163 46	7,971 64	.....	1,191 82	115
E.....	.....	16,142 53	16,142 53	.....	00
D.....	28,856 80	15,788 43	.....	13,068 37	183
C.....	16,691 81	13,568 10	.....	3,123 71	123
B.....	.....	13,443 95	13,443 95	.....	00
A.....	41 020 04	24,224 63	.....	16,795 41	169
1.....	24,453 00	53,735 43	29,282 43	.....	46
2.....	22,539 00	18,641 43	.....	3,997 57	122
3.....	35,636 64	28,121 22	.....	7,515 42	127
4.....	23,716 00	19,623 70	.....	4,092 30	121
5.....	25,662 50	16,317 19	.....	9,345 31	154
6.....	11,799 00	26,619 64	14,820 64	.....	44
7.....	34,082 00	25,462 74	.....	8,629 26	134
8.....	49 783 50	21,295 08	.....	28,488 42	234
9.....	50,014 30	19,232 36	.....	30,781 94	260
10.....	53,200 00	22,472 29	.....	30,727 71	237
11.....	32 492 50	19,493 98	.....	12,998 52	167
12.....	22,269 25	19,200 06	.....	3,069 19	116
13.....	40,589 25	18,588 65	.....	22 000 60	218
14.....	26,566 00	20,653 03	.....	5,912 97	129
Totals.....	\$665 052 31	\$509 998 27	\$82 295 33	\$237,349 37	130.4



## FORCE REPORT—DAILY AVERAGE—AUGUST, 1894.

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Chan- nelers.	Air Com- pressors.	Conveyors.	Locomo- tives.	Cars.	Dredges.	Graders.	Steam Tow Boats.	Scows.
O.....	50	10	...	...	...	...	...	...	...	...	11	4.0	...	5.0	13.0
N.....	30	33	...	...	...	...	...	...	...	...	...	...	...	...	...
M.....	36	21	3	1.1	...	...	...	...	0.3	...	1	...	5	...	...
L.....	108	7	3.7	...	...	...	...	...	3.6	...	6	...	...	...	...
K.....	47	59	4	...	...	...	...	...	4	...	1	...	3.9	...	...
I.....	143	58	3.8	1.1	...	9	...	...	3.8	...	7	...	1.9	...	...
H.....	15	33	...	...	...	...	...	...	...	...	...	...	...	...	...
G.....	91	50	2.0	2.0	...	...	...	...	1.0	...	32	...	...	...	...
F.....	57	11	1.3	3.0	...	...	...	...	...	2.4	17	...	...	...	...
E.....	2	1	...	1.7	...	...	...	...	...	...	...	...	...	...	...
D.....	130	87	1.8	3.0	...	...	...	...	...	4.0	37	...	3.0	...	...
C.....	204	29	2.0	3.2	...	...	...	...	...	4.0	44	1.0	...	...	1.0
B.....	67	...	...	...	...	...	...	...	...	...	...	6	...	...	...
A.....	194	1	0.6	...	...	...	...	...	...	1.0	13	3.1	...	...	...
1.....	186	26	3.3	2.0	...	...	...	...	4.0	58	...	...	...	...	...
2.....	264	29	1.7	5.2	7	2.3	1.4	...	...	...	118	...	...	...	...
3.....	490	13	8	5.0	8.6	1.1	7.1	1.2	7.2	...	27	...	...	...	...
4.....	180	23	3.4	4.6	...	2.5	...	...	...	...	69	...	...	...	...
5.....	267	27	1.9	6.5	6	2.3	1.6	...	1	6.0	104	...	...	...	...
6.....	243	12	1.7	3.3	1	3.4	6	...	1.3	...	18	2.1	...	...	...
7.....	471	12	...	10.7	14.0	4.9	8.9	2.2	7.9	...	23	...	...	...	...
8.....	484	13	...	3.6	21.7	2.0	12.9	1.0	5.0	...	28	...	...	...	...
9.....	527	16	...	3.1	18.0	3.9	10.0	...	1.8	...	136	...	...	...	...
10.....	416	3	...	1.9	18.0	3.1	8.6	1.0	2.9	...	40	...	...	...	...
11.....	223	4	...	5.0	14.6	...	6.2	1.1	3.5	...	...	...	...	...	...
12.....	170	3	...	3.0	9.2	...	4.0	1.1	3.1	...	...	...	...	...	...
13.....	317	5	...	6.0	16.7	...	7.6	1.1	4.2	...	...	...	...	...	...
14.....	270	11	2.8	6.8	5.6	6	6.0	1.0	1.8	4.4	94	...	...	...	...
Totals. ....	5 682	597	31.5	81.8	127.8	27.0	74.9	9.7	47.9	25.8	884	10.8	9.3	5.0	14.0

TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVER

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION.	
		Glacial Drift	Solid Rock.	Glacial Drift	Solid Rock.
		Cubic Yards.	Cubic Yards.	Cubic Yards.	Cubic Yards.
O	McMahon & Montgomery Co. et al.	319,400			
N	Hayes Bros. et al.	20 500			
M	The Heidenreich Co.	141,700			
L	The Heidenreich Co.	288,000			
K	Christie & Lowe.	236,900			
I	Christie & Lowe.	389,600			
H	Gahan & Byrne.	69,070			
G	Gahan & Byrne.	368 052			
F	Ricker, Lee & Co.	472,471		158,234	
E	Streeter & Kenefick.	469,163		95,718	
D	E. D. Smith & Co.	907,044			
C	Western Dredging & Imp. Co.	510 479		162,537	
B	Heldmaier & Neu.	517,285		208,626	
A	Heldmaier & Neu.	547,385		120,786	
1	Griffiths & McDermott.	181,826		5,876	
2	McArthur Bros.	410,241		29,516	
3	Gilman & Co.	282 110	48,011		
4	McArthur Bros.	450,000			
5	The Qualey Construction Company	449,300	2,300		
6	Mason, Hoge & Co.	419,600		112,700	
7	Mason, Hoge & Co.	125 800	238 000	96,700	41,000
8	Mason, Hoge, King & Co.	35,800	416,500	54,000	96,500
9	Halvorson, Richards & Co.	63 700	341 000	37,700	16,000
10	E. D. Smith & Co.	26 400	656,600	27,400	56,500
11	Mason, Hoge & Co.	43,492	523,200	5,756	11,483
12	Mason, Hoge & Co.	27 400	478 700		
13	Mason, Hoge & Co.	32,822	732,500		
14	Smith & Eastman	216,500	195,500		
Totals.		8,022,040	3,626 311	1,115,549	221,483

Main Channel, glacial drift.

Main Channel, solid rock.

River Diversion, glacial drift.

River Diversion, solid rock.

Total amount required to be done September 1st, 1894.

Total amount done September 1st, 1894.

Total amount short as per contracts.

Total value of work done under contracts September 1st, 1894.

Reserved. { 12½ per cent.

{ 10 per cent.

Total value of vouchers paid, including those of September 1st, 1894.

Total value of vouchers paid for collateral work, including those of September 1, 1894.

Total disbursement construction account.

NOTE.—\*Overhaul to Levee—Section 1 not included.

†Overhaul to Levee—Section 1 included.

SION) AND CONDITION OF WORK ON CONTRACTS SEPT. 1ST, 1894.

Total value of work done to Sept. 1st, 1894, on each section.	Total value of work required to be done to Sept. 1st, 1894.	Amounts behind as per contracts.	Amounts ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary June 1st, 1894, to time of completion.	Progress made during month of August, 1894.
\$ 67,074 00	\$ 53,493 20	\$ .....	\$13,580 80	\$13,373 30	\$13 673 53	\$20,160 00
4 715 00	42,459 24	37,744 24	.....	10,614 81	11,076 32	4,715 00
30,748 90	31,275 10	526 20	.....	6,255 02	6,550 80	6,488 30
56,736 00	43 241 80	.....	13,494 20	8,648 36	8,791 40	12,470 10
59,225 00	57,452 75	.....	1,72 25	11,490 55	12,259 29	15 025 00
97,400 00	56,809 70	.....	40,590 30	11,361 94	11,332 54	27 850 00
20,030 30	59,834 15	39,803 85	.....	11,966 83	13,007 42	9,260 86
103,054 56	78,956 90	.....	24 097 66	15,791 38	16,068 83	20,538 00
149,792 44	133,011 14	.....	16,781 30	9,110 44	8,229 08	9,163 46
155,842 28	229,881 96	74 539 68	.....	16,940 19	18,018 84	.....
239,799 76	218,026 50	.....	21,773 26	15,788 43	16,182 92	28,856 80
158,158 76	207,489 94	49,331 18	.....	14,820 71	17,235 86	16,691 81
195 995 97	212 521 96	16 525 99	.....	15,180 14	17,648 80	.....
204,627 37	355,689 32	151,061 95	.....	25,406 33	31,590 06	41,938 79
*61,017 56	195,497 15	134 479 59	.....	53,735 43	53,735 43	24 453 00
206,856 48	356,117 00	149,260 52	.....	18,743 00	24,863 58	22 539 00
173 210 06	272,884 68	99,674 62	.....	28,121 22	33,566 96	35 636 64
209,809 54	392,474 00	182,664 46	.....	19,623 70	27,776 89	23,716 00
131,001 50	318 185 21	187,183 71	.....	16,317 19	24,128 73	25 662 50
142,516 00	190 248 04	47,732 04	.....	26,661 51	26,930 88	11,799 00
262 915 00	269,162 86	6,247 86	.....	25,550 84	26,144 27	34 092 00
406,815 50	492,954 63	86,139 13	.....	23,474 03	31,195 19	50,293 75
300,897 00	416,509 59	115,612 59	.....	19,833 79	27,377 55	5,014 30
579,130 00	498,260 93	.....	80,869 07	23,774 33	23,854 68	53 200 00
438,633 80	414 926 61	.....	23,707 19	19,758 41	20 333 49	32 492 50
387,658 25	403 201 26	15,543 01	.....	19,200 05	20,238 28	22 269 25
556,077 47	390 361 65	.....	165,715 82	18,588 65	14,292 26	40,589 25
210,479 00	433,713 63	223,234 63	.....	20,653 03	30,825 84	26,566 00
<b>\$5,609,717 50</b>	<b>\$6,824,640 90</b>	<b>\$1,617,305 25</b>	<b>\$402,381 85</b>	<b>\$520,783 67</b>	<b>\$586,929 22</b>	<b>\$666,481 31</b>

Cubic Yards.	
.....	8,022,040
.....	3,626,311
.....	1,115,549
.....	221,483
.....	\$6,824,640 90
.....	5,609,717 50
.....	\$1,214,923 40
.....	\$5,609,717 50
.....	\$682,642 42
.....	119,829 89
.....	802,472 31
.....	\$4,807,245 19
.....	+528,154 55
.....	\$5,335 399 74



"CHICAGO, Sept. 4, 1894.

*Mr. Isham Randolph, Chief Engineer:*

DEAR SIR:—The work of Division 2 for the month of August was as follows:

The Joliet survey taking in the river bottom has been carried southward to a point about one-half mile south of Brandon's bridge. The work is platted from Robey street to the C., R. I. & P. Railway crossing. The reduction of notes is progressing.

A party is at work taking levels along highways and section lines in the townships of Palos and Orland. 32½ miles of levels have been run.

The surveys with reference to railroad location between Bridgeport and Lockport were completed, notes platted and estimates made.

Masonry plans for bridges over Main Channel at Willow Springs, Lemont and Romeo were made.

Tests on cement and sand to be used in retaining walls were commenced.

Repairs on the Spillway were completed.

The work of taking record photographs was continued. The maintenance of record and water gauges was continued.

Expenses for September will be about the same as for August.

Yours truly,

(Signed) THOS. T. JOHNSTON,

*First Assistant Chief Engineer."*

"CHICAGO, Sept. 10, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of August, 1894:

Finished the map of the District lands in Cook County for the County Recorder's Office; the original and tracing of the map and profile of the Kedzie avenue crossing of the Main Channel; twelve maps showing proposed railroad lines between Chicago and Joliet; one Right of Way map between Chicago and Summit; the plans for retaining walls southwest of the Willow Springs road, and a tracing of tracts in the S. W. ¼ of Sec. 30, T. 39 N., R. 14 E.

Estimated the acreages of two tracts in the N. W. ¼ of Section 3, T. 35 N., R. 10 E.; the Island fraction of the S. E. ¼ of Section 15, T. 36 N., R. 10 E.; three tracts

in the S. ¼ of Section 32, T. 38 N. R. 12 E. between the DesPlaines River and the Chicago, Santa Fe & California Railway; the East ½ of the southeast ¼ of Section 34, and that part of the southwest ¼ of Section 35, north of the ordinance line, T. 39 N., R. 13 E.

Made two maps showing tract numbers on right of way pieces between Lockport and Joliet, and two colored maps of the topography from Chicago to Joliet.

Commenced work on the official plans of Section E.

Some platting was done on the large scale topographical sheet northwest of Summit near the Calumet Terminal Railroad.

The main part of the work during the month was given to the preparation of the plat books; the platting of the District map; the Illinois River maps and the progress profiles.

The expenses for this month will be the same as for August.

Yours respectfully,

(Signed) EDGAR WILLIAMS,

*Second Assistant Chief Engineer."*

EXTENSION OF AGREED TIME FOR COMPLETION OF LEVEE ON SECTIONS A AND 1.

The Clerk presented two (2) reports from the Chief Engineer, asking an extension of time, as set forth in the report, for the completion of the river diversion levees on Sections A and 1, under contract with Griffiths & McDermott, contractors for said section, and a second extension of time, as set forth in the report, under supplemental agreement with Heldmaier & Neu, contractors for said section; and the reports were read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the reports were ordered printed and so referred.

The following is

THE REPORT:

"CHICAGO, September 26, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Contractors for Section No. 1 have made good progress on

the levee when we consider the difficulties which have attended its construction, but they cannot complete it within the time required by their contract, therefore, I ask that you grant them an extension to November 15th, for completing this levee.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

The following is

THE REPORT:

"CHICAGO, Sept. 25, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—On July 17th I sent a communication to you asking for an extension of time in which the levee on Section A could be completed by Heldmaier & Neu. The extension has almost expired and a large amount of work is yet to be done owing to the settlement of the bank into the muck and the disarrangement of the tracks occasioned thereby which has caused much delay to the contractors and I therefore ask an extension of time to November 15th.

Yours respectfully,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

INCREASE OF SALARY FOR CLERK IN LAW  
DEPARTMENT.

The Clerk presented a report from the Attorney, asking authority to increase the salary of one clerk in that department, as set forth in the report; and the report was read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the report be ordered printed and referred to the Joint Committee on Judiciary and Finance.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

THE REPORT:

"CHICAGO, Sept. 26, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The class of work required of Charles H. Bryce, one of the

Clerks of this department, requires close attention to detail, a familiarity with land descriptions, and a degree of accuracy reached only by previous training and experience.

Both my predecessor and myself believe that the work required of him is not fully compensated at the present salary paid him. I therefore recommend that he be paid, beginning with October 1, 1894, at the rate of ninety (\$90) dollars per month.

Respectfully submitted,

(Signed) GEO. E. DAWSON,  
*Attorney."*

PURCHASE OF ADDITIONAL "UNION SAFE  
DEPOSIT CO." LANDS.

Mr. Eckhart, Chairman presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from the Union Safe Deposit Company of certain additional right of way lands in Cook County, and authorizing and directing the Clerk to pay for the said right of way lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay the said Union Safe Deposit Company, on the voucher of the Attorney for the said additional right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay the said Union Safe Deposit Company, on the voucher of the Attorney, for the said additional right of way lands, as provided in the report.

The following is

THE REPORT:

"CHICAGO, Sept. 26, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on



Finance and Engineering have reached an agreement with the Union Safe Deposit Company for the purchase from it for the corporate purposes of this District of the land hereinafter described for the sum of twenty thousand (\$20,000.00) dollars.

Your Committee recommend that the Clerk of this District be authorized and directed to pay, on the voucher of the Attorney, to said Union Safe Deposit Company the sum of twenty thousand (\$20,000.00) dollars, in full payment for the following described premises, to-wit:

That part of the west half (W.  $\frac{1}{2}$ ) of the east half (E.  $\frac{1}{2}$ ) of the northwest quarter (N. W.  $\frac{1}{4}$ ) of the northwest quarter (N. W.  $\frac{1}{4}$ ) of Section thirty-six (36), Township thirty-nine (39) North, Range thirteen (13), East of the Third Principal Meridian, lying north (N.) of a straight line drawn from a point in the south (S.) line of the northwest quarter (N. W.  $\frac{1}{4}$ ) of the northwest quarter (N. W.  $\frac{1}{4}$ ) of said section, forty-two and one one-hundredths (42.01) feet west (W.) of the southeast (S. E.) corner of the west half (W.  $\frac{1}{2}$ ) of the northwest quarter (N. W.  $\frac{1}{4}$ ) of said northwest quarter (N. W.  $\frac{1}{4}$ ) to a point in the east (E.) line of the northwest quarter (N. W.  $\frac{1}{4}$ ) of said section, five hundred and thirty-three and seventy-two one-hundredths (533.72) feet south (S.) of the northeast (N. E.) corner of the northwest quarter (N. W.  $\frac{1}{4}$ ) of said section, said premises lying and being situate in the County of Cook, State of Illinois.

Respectfully submitted,

(Signed)

B. A. ECKHART,

*Chairman.*

W. H. RUSSELL,

THOMAS KELLY,

JOHN J. ALTPETER,

WM. BOLDENWECK,

L. E. COOLEY,

*Joint Committee on Finance and Engineering.*

APPROVAL BY LEMONT HIGHWAY COMMISSIONERS OF STEPHENS' STREET BRIDGE AND ROADWAY.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, transmitting certified copy of the minutes of a meeting of the Highway Commissioners of the Town of Lemont, approving the construction of the Stephens Street bridge and road-

way, constructed under agreement presented and approved at the meeting held September 6, 1893, (Page 1435 of the Proceedings); and the report and enclosure were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted and, with enclosure, ordered printed and placed on file.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, and, with enclosure, ordered printed and placed on file.

The following is

THE REPORT, WITH ENCLOSURE:

"CHICAGO, Sept. 22, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—At a meeting of the Highway Commissioners of the Town of Lemont, held Tuesday, September 5th, 1893, an ordinance was passed (see page 1435 of Proceedings) authorizing and permitting the Sanitary District of Chicago to construct and maintain a new river channel for the Des Plaines River over, through, upon and across the highway extending northwest from the Village of Lemont, in Section (20), Township thirty-seven (37) North, Range eleven (11), East of the Third Principal Meridian, on condition that it should, at its own cost and expense, build a new bridge over the same in the line of said highway; said authorization was given upon certain conditions in said ordinance expressed as to the manner in which said bridge should be built, and provided that the same should be approved by said Commissioners. In pursuance of the authority thus granted said bridge and approaches have been completed and the same have been approved by said Highway Commissioners. We transmit herewith a copy of the proceedings of said Highway Commissioners, at a meeting held September 6th, 1894, at which said time said work was formally accepted as



in all respects in accordance with the provisions of the ordinance aforesaid.

Respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.

B. A. ECKHART,  
THOMAS KELLY,  
W. H. RUSSELL,  
JOHN J. ALTPETER,  
WM. BOLDENWECK,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure.)

(Enclosure)

"At a meeting of the Highway Commissioners of the Town of Lemont, County of Cook and State of Illinois, held September 6, 1894, the following proceedings were had:

On motion of Commissioner Lawrence Kirk, seconded by Commissioner Alfred Roebuck, the following order was adopted:

"WHEREAS, At a meeting of the Highway Commissioners of the Town of Lemont, held Tuesday, Sept. 5, 1893, an ordinance was passed, authorizing and permitting the Sanitary District of Chicago to construct and maintain a new river channel for the Desplaines River over, through, upon and across the highway extending northwest from the Village of Lemont, Section Twenty (20), Township Thirty-seven (37), North, Range Eleven (11), East of the Third Principal Meridian, on condition that it should, at its own cost and expense, build a new bridge over the same in the line of said highway; and

WHEREAS, Said ordinance contained certain specifications as to the manner of constructing said bridge and making approaches to same, and said Sanitary District, in accordance with said ordinance has constructed said new channel for the Desplaines River and built a bridge over the same; now, therefore, be it

*Ordered*, That the Highway Commissioners of the Town of Lemont having examined said highway bridge and roadway from a point on said highway opposite the Police Station of said Sanitary District, in a northwesterly course to the South line of DuPage County find the same to have been done in all respects in accordance with the provisions of said

ordinance, for that part of the said roadway and the said highway bridge above named."

(Signed) LAWRENCE KIRK,  
ALFRED ROEBUCK,  
*Commissioners of Highways of the Town of Lemont.*

Attest:

(Signed) MATTHEW J. NEW,  
*Town Clerk."*

"STATE OF ILLINOIS, }  
County of Cook } ss.

I, Matthew J. New, Town Clerk of the Town of Lemont, County and State aforesaid, do hereby certify that the foregoing is a true and correct copy of an order duly passed by the Highway Commissioners of said Lemont Township as shown by the records of my office.

Witness my hand this Sixth Day of September, 1894.

(Signed) MATTHEW J. NEW, (Seal)  
*Town Clerk."*

AGREEMENT FOR REMOVAL OF RIVER  
DIVERSION MUCK ON SECTIONS  
A AND 1.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, transmitting, in duplicate, agreement with Lindon W. Bates, providing for the removal of muck and other obstructions in the Desplaines River Diversion on Sections A and 1, as set forth in the report and accompanying agreement, and recommending that the President and Clerk be authorized and directed to execute the said agreement, on behalf of the District; and the report and agreement were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report and accompanying agreement be adopted, ordered printed and placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreement, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report and accompanying agreement adopted, ordered printed, and placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said agreement, on behalf of the District, as provided in the report.

The following is

THE REPORT, WITH ACCOMPANYING  
AGREEMENT:

"CHICAGO, Sept. 26, 1894.

*To the Honorable, the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee has had under consideration the removal of the muck and other obstructions in the Desplaines River on Section A, and on that portion of Section One (1) lying easterly of the Willow Springs Highway bridge.

Pursuant to the provisions of the contracts under the head of Extra Work the Chief Engineer fixed the price for the excavation required at fifteen (15) cents per cubic yard. The contractors declined to execute this work at the price so fixed and the same has been let subject to your approval to Lindon W. Bates at the price specified.

An agreement has been prepared by the Attorney under the direction of your Committee which has been signed in duplicate by Mr. Bates. We transmit herewith the copies of said agreement and recommend that same be executed by the President and Clerk on the part of the District.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.

B. A. ECKHART,  
THOMAS KELLY,  
WM. BOLDENWECK,  
JOHN J. ALTPETER,  
W. H. RUSSELL,

*Joint Committee on Engineering and Finance."*

(Accompanied by agreement, in duplicate.)

AGREEMENT.

"*This Agreement, Made this 26th day of September, A. D. 1894, by and between the Sanitary District of Chicago, party of the first part, and Lindon W. Bates, party of the second part, Witnesseth:*

That, for and in consideration of the payments hereinafter provided to be made to second party by first party, second party hereby covenants and agrees to remove all the muck and other material that can be removed by a hydraulic dredge from such portions of the river and adjoining land as the Chief Engineer of first party shall direct on contract

Section A of the first party and that portion of contract Section One (1) easterly of the Willow Springs Highway Bridge. Said work shall be conducted under the direction of the Chief Engineer of first party and the excavation shall not be made deeper than shall be necessary in order to provide for the advantageous flotation of the dredge during the work and to permit the withdrawal thereof when said work is complete.

Second party shall, at his own expense, provide lands upon which to build the requisite retaining levees and sluices and upon which to spoil the material excavated, or he may spoil such material in the basins provided by the contractors for Section A for spoiling from the main channel, provided he can make arrangements therefor with said contractors without cost to first party, and that he shall take proper precautions to make the levees of the retaining basins sufficiently strong to prevent the possibility of the material deposited in said basins from breaking through, and second party shall be liable for all damage caused by any breaks in said levees.

The work shall be carried on at such places and to such depth as the Chief Engineer of first party shall direct, but the amount excavated hereunder shall not be less than one hundred thousand (100,000) cubic yards, nor shall it exceed two hundred thousand (200,000) cubic yards, but said Engineer may, in his discretion, cause said work to cease at any time after the amount of one hundred thousand (100,000) cubic yards has been excavated.

First party shall cause an opening of at least seventy-five (75) feet to be left in the levee near Station 718 so that second party may use same for the withdrawal of his dredge from the river upon the completion of the work herein provided for.

All the work to be done under this contract shall be finished on or before December 15th, 1894.

First party shall pay for all the material excavated from said river and along the banks thereof by the cubic yard of material actually excavated in accordance with the terms and conditions of this contract.

First party shall cause to be stationed on said dredge one of its engineers who shall make daily estimates of the amount of excavation made by second party, and said estimates shall be accepted by the



parties hereto as final and as determining the amount of excavation for which payment is to be made and accepted hereunder. Payments shall be made for the material so excavated on the 10th and 25th days of each month during the time of this contract at the rate of fifteen cents (15c.) per cubic yard, less fifteen (15) per cent thereof to be retained by first party until the completion of this contract in accordance with its terms. It is understood that first party shall provide all the right of way from which the proposed excavation is to be made.

The Chief Engineer of first party shall decide every question which may arise between the parties hereto relative to the execution thereof and his decision shall be final and binding upon both parties.

*In Witness Whereof*, On the day and year first above written, the said Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk and its corporate seal to be hereto affixed, and the said party of the second part has hereunto set his hand and seal," etc.

#### PROPOSITION TO PURCHASE STONE EXCAVATED FROM MAIN CHANNEL.

The Clerk presented a communication from the Union Stone Co., by A. J. Toolen, President, making proposition for the purchase of stone excavated from the Main Channel, as set forth in the communication; and the communication was read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the communication be ordered printed and referred to the Joint Committee on Finance and Engineering.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

#### THE COMMUNICATION:

"CHICAGO, September 24, 1894.

*To the Trustees of the Sanitary District of Chicago:*

We desire to make the following pro-

position for the purchase and disposal of all merchantable stone on the banks of the Drainage Canal which may not be required by you in the construction of retaining walls and other work about the Canal, viz:

We will pay the Sanitary District 12½% of the gross receipts from all sales less the freight that may be paid.

We will furnish and equip crushers, conveyers and all other necessary apparatus to enable us to place the stone on the market in sufficient quantities to meet every reasonable demand of your Honorable Body.

We will make payments to your Treasurer weekly or otherwise as you may direct; we will furnish a bond in such amount as you may suggest as a guarantee of good faith.

The Auditor of the Sanitary District can have access to the books of our company for the purpose of ascertaining the gross receipts at all times.

You are to give us the free use of the Canal for the loading and transportation of such stone as may be purchased and removed under this contract, and all other such switch tracks constructed on the property on the Sanitary District as may be necessary to connect with convenient railroads for the shipment of stone purchased and removed under this contract, prior to the completion of the Canal for navigation.

UNION STONE CO.,

(Signed)

A. J. TOOLEN,

*President."*

#### ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Cooley, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*



September 26,]

— 2137 —

[1894.

# PROCEEDINGS

—OF THE—

# BOARD OF TRUSTEES

—OF THE—

## SANITARY DISTRICT OF CHICAGO.

OCTOBER 3, 1894.

### OFFICIAL RECORD.

*(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and forty-first regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, October 3, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9) members were present.

#### MINUTES.

The minutes of the regular meeting, held September 26, 1894, were approved as printed, on motion of Mr. Gilmore, seconded by Mr. Boldenweck.

### VOUCHERS.

The Clerk presented the following vouchers:

#### PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (Sept., 1894).....	\$ 500 00
Eng. Dept., Div. No. 1, (September 1894)....	8,678 58
Eng. Dept., Div. No. 1, Tow-path roll (September, 1894).....	348 75
Eng. Dept., Div. No. 2, (September, 1894)....	2,519 66
Eng. Dept., Div. No. 3, (September, 1894)....	2,065 65
Eng. Dept., Div. No. 4, (September, 1894)....	340 00
Eng. Dept., Discharged men's roll, (September, 1894).....	20 00
	<hr/> \$14,472 64
Clerical Dept., Clerk's roll, (September, 1894)	891 66
Law Dept., Attorney's roll, (September, 1894) \$	986 66

Law Dept., Joliet roll, (September, 1894).....\$	458 34	
		\$ 1,445 00
Treasury Dept., Treas- urer's roll, (Sept., 1894).....	166 67	
General Account, Gen- eral roll, (Sept., 1894) \$	235 00	
General Account, Trus- tees' roll, (September, 1894).....	2,333 33	
		\$ 2,568 33
Police Dept., Mar- shal's roll, (Sept., 1894).....		\$ 3,694 15
Total.....		\$23,238 45

## ENGINEERING DEPARTMENT.

Barnard & Hornstein, (printing specifica- tions).....\$	145 00	
The Tobey Furniture Co., (desk).....	17 00	
W. C. Ritchie & Co., (paper tubes).....	1 50	
John McCaffery, (rent, Brighton Park, Sept., 1894).....	25 00	
John T. Allison, (rent, Summit, Sept., 1894).....	20 00	
J. M. Abbitt (rent, Wil- low Springs, Sept., 1894).....	20 00	
H. S. Norton, (rent, Lemont, Sept., 1894)	18 00	
O. W. Moon (rent, Lockport, Sept., 1894)	20 00	
Ryan & Sullivan, (coal)	36 00	
Chicago Towel Supply Co. (toweling).....	5 40	
C. S. Austin, (ice).....	9 00	
Gibson Mfg Co., (cast- ing for cement tester)	1 75	
Fairbanks, Morse & Co., (cement moulds)	63 00	
B. W. Eisendrath & Co., (plate glass for tester).....	1 50	
J. H. Spengler, (ex- pense).....	6 97	
Alex. E. Kastl, (trav- eling).....	22 95	
H. B. Alexander, (trav- eling).....	15 38	
Chas. L. Harrison, (traveling).....	9 00	
U. W. Weston, (travel- ing).....	13 75	
Ebin J. Ward (travel- ing).....\$	10 15	
		\$ 461 35

## CLERICAL DEPARTMENT.

Cameron, Amberg & Co. (stationery)..... \$	4 66	
Warner's Towel Sup- ply, (toweling).....	1 50	
C. S. Austin, (ice).....	3 00	
Waukesha Hygeia Min- eral Springs Co. (wa- ter).....	3 75	
		\$ 12 91

## LAW DEPARTMENT.

John P. Wilson, (legal services).....\$	1,250 00	
Orrin N. Carter, (legal services).....	350 00	
Jos. Donnersberger, (expert, right of way services, Sept., 1894).....	300 00	
Thos. Hennebery, Sher- iff, Will County (ser- vices).....	14 95	
Chicago Daily Law Bulletin, (subscrip- tion).....	3 00	
Chicago Telephone Co., (telephone service).....	31 25	
Horace S. Snowden, (cleaning awnings).....	3 50	
C. S. Austin, (ice).....	3 00	
Warner's Towel Sup- ply (toweling).....	1 50	
Geo. E. Dawson, (ex- pense).....	135 09	
		\$2,092 29

## GENERAL ACCOUNT.

The Chicago Deposit Vault Co., (rent, Aug. to Oct., 1894).....\$	1,875 00	
Thos. F. Judge, (pay roll and sundry ex- pense).....	29 48	
Chicago Edison Co., (electric lighting).....	30 48	
The Chicago Herald Co., (advertising ap- propriation ordi- nance).....	7 20	
The Chicago Herald Co., (advertising Sec- tion E.).....	25 50	
The Tribune Co., (ad- vertising Section E.)	26 70	
The Mail, (advertising Section E.).....	18 00	
The Illinois Staats- Zeitung Co., (adver- tising Section E.)....	11 87	
The Abendpost Co., (advertising Sec. E.)..	10 00	
Chicago Arbeiter-Zei- tung Pub. Co., (ad- vertising Section E.)	8 50	
Chicago Evening Post Co., (advertising Sec- tion E.).....	18 00	
The Railway Review, (advertising Section E.).....	27 88	
		\$2,088 61
Grand Total.....		\$27,893 61

Mr. Kelly, seconded by Mr. Eckhart, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast,



Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

#### REQUISITIONS.

The Clerk presented the following requisitions:

No. 711, Treasury Department, (stationery).....	\$ 21 20
No. 930, Police Department, (coal and stoves).....	447 90
Total.....	\$ 469 10

Mr. Boldenweck, seconded by Mr. Eckhart, moved that Requisitions No. 711, for the Treasury Department, and No. 930, for the Police Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 711, for the Treasury Department, and No. 930, for the Police Department, as read and shown above, allowed.

#### WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending September 29, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending September 29, 1894, as the same have been reported to me:

Engineering Department.....	140
Clerical Department.....	4
Law Department.....	7

Treasury Department.....	1
Police Department.....	47
Total employes.....	199

Respectfully submitted,  
(Signed) THOS. F. JUDGE,  
*Clerk.*”

#### MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of September, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT:

“Balance on hand at date of last report.....	\$3,520,660.73
Received from County Treasurer, tax account (1893).....	\$ 50,000.00
Received from Thos. F. Judge, Clerk, for General Account, (Rent, Heldmaier & Neu)....	120 00
Received from Thos. F. Judge, Clerk, for General Account, (Rent, Western Dredging and Improvement Co.)....	150 00
Received from County Treasurer, tax account (1893).....	50,000.00
Received from Ft. Dearborn National Bank, interest for September.....	1,111.53
Received from Metropolitan National Bank, interest for September.....	1,102.25
Received from National Bank of Illinois, interest for September.....	1,046.32
Received from American Trust and Savings Bank, interest for September.....	34.51
Received from Chicago National Bank, interest for September.....	1,069.49
Received from Globe National Bank, interest for September....	1,021.70
	<hr/> \$105,655.80
Total cash received for month.....	\$3,626,316.53
Total cash disbursed during month as per annexed schedules, viz:	
Clerical Department....	\$ 896.16
Treasury Department..	166.67

Engineering Departm't.	\$ 15,100.84
Engineering—Construction—Department.....	472,947.58
Law Department.....	2,620.22
Law Department—Land Account.....	48,860.84
General Account.....	5,372.00
Police Department.....	3,881.30
	<u>\$549,845.61</u>

Balance this date, in  
banks as per schedule  
endorsed hereon ..... \$3,076,470.92

(Signed) MELVILLE E. STONE,  
Treasurer.

CHICAGO, Oct. 2, 1894."

#### SCHEDULE :

Fort Dearborn National Bank.....	\$676,122.08
National Bank of Illinois.....	681,962.61
Chicago National Bank.....	650,638.08
Metropolitan National Bank.....	603,859.95
American Trust and Savings Bank.....	21,003.79
Globe National Bank.....	442,884.41
Total.....	<u>\$3,076,470.92</u>

#### LOCATION OF AUXILIARY CHANNEL ON SECTION O.

The Clerk presented a report from the Chief Engineer, stating that he had ordered the auxiliary channel on Section O located, as set forth in the report; and the report was read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

"CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Having been properly advised of the acquirement by this District of all that part of the west half of the east half of the northwest quarter of the northwest quarter of Section 36, Township 39 North, Range 13 East of the Third Principal Meridian, lying north of the north ordinance line of the right of way of this District known as the Granis tract. I have ordered the auxiliary channel, provided for in the contract for Section O, to be located over and through the said tract so that the west line thereof, at an elevation of 10 feet above datum, shall be twenty-five feet from and parallel with the west line of the property

as above described. I respectfully report the facts to you that they may have proper entry in your proceedings.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

#### INSPECTION OF CONTROLLING WORKS.

The Clerk presented a report from the Chief Engineer, asking authority to make a trip for the purpose of an examination of certain controlling works, as set forth in the report; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, and the Chief Engineer authorized to make the trip, as set forth in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the Chief Engineer authorized to make the trip, as set forth in the report.

The following is

#### THE REPORT:

"CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—We have plans for our controlling works well along and will soon be able to submit them to you for adoption. Before presenting them, however, I am very anxious to examine the best examples of this class of work in this country, which are easily accessible. I have consulted with Capt. Marshall, U. S. Engineer Corps, and he advises me to see the works at Davis Island below Pittsburgh; the Kanawah River improvement; a dam in the St. Croix River, 60 miles from St. Paul, erected by the lumbering interests without Government aid; and the Sault Ste. Marie locks. Capt. Marshall considers the dam in the St. Croix River a remarkably fine example of that type of work. It can be adjusted to control the flow of water within a range of 20 feet between high and low stages.

With your permission I will visit these works and will have Mr. Johnston, First Assistant Chief Engineer, accompany me. We should make this inspection while

the present low stage of water prevails and the good weather holds.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

REPORT OF COMMITTEE ON JUDICIARY ON  
SUNDRY MATTERS REFERRED.

Mr. Kelly, Chairman, presented a report from the Committee on Judiciary, with reference to and accompanied by six (6) enclosures, concerning sundry matters referred to that Committee at various meetings, as set forth in the report; and the report was read.

Mr. Kelly, seconded by Mr. Prendergast, moved that the report be adopted, ordered printed, and, with enclosures, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT:

"CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I return herewith for filing certain documents which have been referred to the Committee on Judiciary and the subject matter disposed of, no recommendation being made with reference to the same.

1. A communication from Thomas D. Snyder, with reference to certain lots in the line of the first proposed route for the Main Channel, referred at the meeting held June 1, 1892, (page 535 of the Proceedings.)

2. A communication from the "United Carpenters' Council of Chicago," with reference to the "8-hour day" matter, referred at the meeting held June 21, 1893, (page 1287 of the Proceedings); see opinion on this matter, (page 1288).

3. A report from the Chief Engineer, transmitting a report from the Superintendent of Construction, with reference to complaints lodged with him, referred at the meeting held August 23, 1893, (page 1414).

4. A communication from the Lemont State Bank, with reference to time-checks given by contractors for labor on the Main Channel, referred at the meeting held August 23, 1893, (page 1419).

5. A communication from McKeown, Stowell & Co., with reference to the rejection of their bids on Sections 2, 3 and 4 of the Main Channel, referred at the meeting held November 15, 1893, (page 1574).

6. A communication from the Lemont State Bank, with reference to time-checks in their hands, issued by certain contractors on Sections 7, 8 and 9 of the Main Channel, referred at the meeting held February 10, 1894, (page 1755).

Respectfully submitted,

(Signed) THOMAS KELLY,  
Chairman, Committee on Judiciary."  
(Six (6) enclosures).

REPORT ON PRESIDENT'S MESSAGE CONCERNING ALLEGED SUB CONTRACTS.

Mr. Kelly, Chairman, presented a report from the Joint Committee on Judiciary and Finance, with reference to and accompanied by the President's message, transmitting to the Board three (3) documents concerning alleged sub-contracts said to have been made on Section 8 of the Main Channel, presented and referred to that Committee at the meeting held April 12, 1893, (page 1143 of the Proceedings); and the report was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosures, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT:

"CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the message of the President, transmitting three (3) documents concerning alleged sub-contracts said to have been made on Section 8 of the Main Channel, presented and referred to the Joint Committee on Judiciary and Finance at the meeting held April 12, 1893, (page 1143 of the Proceedings) your Committee respectfully return said message, with enclosures, for filing, no recommendations being made in the premises.

Respectfully submitted,

(Signed) THOMAS KELLY,  
Chairman.  
WM. BOLDENWECK,  
JOHN J. ALTPETER,  
B. A. ECKHART,  
W. H. RUSSELL,

*Joint Committee on Judiciary and Finance."*

(Four (4) enclosures.)



REPORT ON INCREASE IN SALARY FOR  
CLERK IN LAW DEPARTMENT.

Mr. Kelly, Chairman, presented a report from the Joint Committee on Judiciary and Finance, with reference to and accompanied by a report from the Attorney, asking authority to increase the salary of one clerk in the Law Department, as set forth in the report, presented and referred to that Committee at the meeting held September 26, 1894, (page 2232 of the Proceedings), and recommending that the proposed increase be allowed; and the report was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and with enclosure, placed on file, and the recommendations made in the report concurred in.

The following is

THE REPORT:

“CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The communication of the Attorney asking that Charles H. Bryce, one of the clerks in his Department, should be paid, beginning with October 1, 1894, at the rate of ninety (\$90) dollars per month, which was referred to this Committee at the last meeting of the Board, has been considered by us, and we recommend that the proposed increase be allowed.

Said communication is herewith returned for filing.

Respectfully submitted,

(Signed)

THOMAS KELLY,

Chairman.

WM. BOLDENWECK,

JOHN J. ALTPETER,

B. A. ECKHART,

W. H. RUSSELL,

*Joint Committee on Judiciary and Finance.”*

(One (1) enclosure.)

REPORT ON SETTLEMENT OF EXPERT WIT-  
NESS FEES IN CONDEMNATION CASES.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, with reference to and transmitting a report from U. W. Weston, accompanied by statement, fourteen (14) receipts and check (\$275), being an account of moneys advanced on vouchers for the payment of expert witnesses in certain condemnation cases, presented and referred to that Committee at the meeting held September 19, 1894, (page 2203 of the Proceedings) recommending that the report be approved, and the check deposited with the Treasurer to the credit of the District and account of the Law Department thereof, as set forth in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in.

The following is

THE REPORT:

“CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the report from U. W. Weston, accompanied by statement, fourteen (14) receipts and check (\$275), being an account of moneys advanced on vouchers for the payment of expert witnesses in condemnation cases, presented and referred to the Committee on Finance at the meeting held September 19, 1894, (page 2203 of the Proceedings), your Committee report as follows:

We have examined the account as set forth in the statement accompanying the report, and find same to be correct, and we therefore recommend that the report be approved, and the check accompanying covered into the Treasury of the District to the credit of the District and the account of the Law Department thereof.

The report, statement and receipts are transmitted herewith for filing.

Very respectfully submitted,  
(Signed) B. A. ECKHART,  
Chairman.  
W. H. RUSSELL,  
THOMAS KELLY,  
Committee on Finance."

(Accompanied by report, statement, check, and 14 receipts.)

REPORT OF COMMITTEE ON FINANCE ON  
SUNDRY MATTERS REFERRED.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, with reference to and accompanied by two (2) enclosures concerning sundry matters referred to that Committee at various meetings as set forth in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed, and, with enclosures, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT:

"CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I return herewith for filing two (2) documents, which have been referred to this Committee, and the subject matter disposed of, viz:

1. A report from the Chief Engineer, recommending an additional advertisement with reference to Sections 2, 3 and 4, referred to the Committee with power to act at the meeting held September 6, 1893, (page 1436 of the Proceedings). The said advertisement was published, as recommended in the report.

2. A message of the President, concerning the leasing of offices for 1894, referred at the meeting held February 10, 1894, (page 1732). See order with reference to this matter, passed at the meeting held April 11, 1894, (page 1863).

Respectfully submitted,  
(Signed) B. A. ECKHART,  
Chairman, Committee on Finance."  
(Two (2) enclosures.)

REPORT OF JOINT COMMITTEE ON FINANCE  
AND ENGINEERING ON SUNDRY MAT-  
TERS REFERRED.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to and accompanied by three (3) enclosures, concerning sundry matters referred to that Committee at various meetings, as set forth in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed, and, with enclosures, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT:

"CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I return herewith for filing three (3) documents, which have been referred to this Committee, and the subject matter disposed of, viz:

1. A resolution with reference to proposed pumping works at Corwith, Illinois, referred to the Committee at the meeting held December 5, 1891, (page 280 of the Proceedings) is returned without recommendation.

2. A communication from Ricker, Lee & Co., offering to purchase the steel rails on the Swift & Co. Ice Plant, referred to the Committee with power to act, at the meeting held May 17, 1893, (page 1233). Satisfactory arrangements were made in regard to the sale by the District of these rails, and the amount received for same has been covered into the Treasury.

3. A communication from the Highway Commissioners of the Town of Lemont, asking permission to use stone from the Main Channel for grading a road, referred at the meeting held June 21, 1893, (page 1296,) and reported on June 28, 1893, (page 1302).

Respectfully submitted,  
(Signed) B. A. ECKHART,  
Chairman, Joint Committee on Finance  
and Engineering."  
(Three (3) enclosures.)

COMPLETION OF LEMONT HIGHWAY AND  
PAYMENT FOR SAME.

Mr. Cooley, Chairman, presented a report from the Joint Committee on En-



gineering and Finance, recommending the payment to Alfred Roebuck, on the voucher of the Chief Engineer, of a certain sum for the completion of the grading of the Stephens street highway and approaches to the River Diversion bridge at Lemont, as provided in the report; and the report was read.

Mr. Cooley, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Alfred Roebuck, on the voucher of the Chief Engineer, for the said work, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said Alfred Roebuck, on the voucher of the Chief Engineer, for said work as provided in the report.

The following is

#### THE REPORT:

“CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On the recommendation of the Superintendent of Construction your Committee, at its meeting of June 11, 1894, instructed the Chief Engineer and Attorney to mature an agreement with Alfred Roebuck, or other parties, for the completion of the grading of Stephens street highway at Lemont and the approaches to the new bridge over the River Diversion so as to make same conform to the conditions expressed in the ordinance of the Highway Commissioners of September 5, 1893, at an expense of not to exceed five hundred dollars (\$500.00). An agreement for said work was made with Alfred Roebuck, and the same has been completed in accordance therewith, and to the satisfaction of said Highway Commissioners.

Your Committee therefore recommend that the Clerk be authorized and directed to pay to said Alfred Roebuck, on the voucher of the Chief Engineer, the sum of five hundred dollars (\$500.00) in full payment for grading and graveling Stephens street highway and the ap-

proaches to the River Diversion bridge at Lemont, Illinois

Respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.  
B. A. ECKHART,  
W. H. RUSSELL,  
JOHN J. ALTPETER,  
THOMAS KELLY,  
WM. BOLDENWECK.

*Joint Committee on Engineering and Finance.”*

#### REPORT ON EXTENSION OF TIME FOR COMPLETION OF LEVEE ON SECTIONS 1 AND A.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by two (2) reports from the Chief Engineer, asking an extension of the time allowed the contractors for the completion of the levee on Sections 1 and A, presented and referred to that Committee at the meeting held September 26, 1894, (page 2231 of the Proceedings), recommending that said time be extended, as set forth in the report; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in.

The following is

#### THE REPORT:

“CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the extension of time for the completion of the levee above Willow Springs, now under construction by the contractors for Sections one (1) and A, referred to this Committee, with favorable recommendation by the Chief Engineer, at the meeting



held September 26, 1894, (page 2231 of the Proceedings), we report as follows:

We recommend that the time for the completion of said levee be extended in the discretion of the Chief Engineer to a date not later than Nov. 15, 1894, provided that no liability shall attach to the District on account of such extension of time.

The two reports referred to the Committee are herewith returned for filing.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*

B. A. ECKHART,

W. H. RUSSELL,

JOHN J. ALTPETER,

THOMAS KELLY,

WM. BOLDENWECK,

*Joint Committee on Engineering and Finance."*

(Two (2) enclosures.)

#### REPORT ON ADDITIONAL ROOM FOR ENGINEERING DEPARTMENT.

Mr. Russell, for the Committee on Rules, presented a report from that Committee, with reference to and accompanied by a report from the Chief Engineer, making requisition for additional room for the use of Division 2 of the Engineering Department, presented and referred to that Committee at the meeting held September 5, 1894, (page 2173 of the Proceedings); and the report was read.

Mr. Russell, seconded by Mr. Kelly, moved that the report be adopted, ordered printed, and, with enclosure, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

"CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee on Rules, to whom was referred, at the meeting held September 5, 1894, (page 2173 of the Proceedings) the report of the Chief Engineer, asking for an additional room for Division 2 of the Engineering Department, has had the matter under consideration, and concluded that by a re-arrangement of the present quarters

occupied by the Department, sufficient room for Division 2 could be obtained, and accordingly the Agent of the Building has ordered the erection of the necessary partitions, free of cost to the District, such an arrangement answering all the requirements of the Engineering Department, and being satisfactory to the Chief Engineer, whose report is returned for filing.

Very respectfully submitted,

(Signed) FRANK WENTER,  
*Chairman.*

W. H. RUSSELL,

B. A. ECKHART,

*Committee on Rules."*

(One (1) enclosure.)

#### REPORT ON INSPECTION OF MAIN CHANNEL BY "CONGRESS OF PUBLIC HEALTH."

Mr. Gilmore, Chairman, presented a report from the Committee on Health and Public Order, with reference to and accompanied by a communication from Dr. F. W. Brewer, suggesting an inspection of the Main Channel by the visiting delegates of the International Congress of Public Health, presented and referred to that Committee at the meeting held October 4, 1893, (page 1495 of the Proceedings); and the report was read.

Mr. Gilmore, seconded by Mr. Altpeter, moved that the report be adopted, ordered printed, and, with enclosure, placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE REPORT:

"CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the communication from Dr. F. W. Brewer, representing the International Congress of Public Health, suggesting an inspection of the Main Channel by visiting delegates attending the said Congress, presented and referred to the Committee on Health and Public Order at the meeting held October 4, 1893, (page 1495 of the Proceedings) your Committee respectfully report that after some correspondence with Dr. Brewer, at the time his communication was received, it was decided that the Board could not appropriate funds for an excursion such as was desired, and therefore so notified Dr.

Brewer, whose communication is returned herewith for filing.

Respectfully submitted,

(Signed) A. P. GILMORE,  
Chairman.

JOHN J. ALTPETER,

*Committee on Health and Public Order."*

(One (1) enclosure.)

DUMPING OF EXCAVATED MATERIAL IN  
CHICAGO RIVER AND HARBOR.

The Clerk presented a communication, from Capt. W. L. Marshall, U. S. A., addressed to President Wenter, with reference to the dumping of excavated material in the Chicago River and Harbor, and also copy of President Wenter's reply thereto; and the communication and reply were read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the action of the President be approved, and the communication and reply be ordered printed and placed on file.

Mr. Prendergast, seconded by Mr. Cooley, moved as a substitute that the action of the President be approved, the communication and reply ordered printed and placed on file, and the subject matter of the same referred to the Joint Committee on Judiciary and Finance.

On roll-call on the substitute the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Gilmore, Kelly, Prendergast and Russell—seven (7). Excused and not voting—Mr. Wenter—one (1). Nays—Mr. Boldenweck—one (1).

Upon which result the President declared the substitute carried, the action of the President approved, and the communication and reply ordered printed and placed on file, and the subject matter of the same referred to the Joint Committee on Judiciary and Finance.

The following is

THE COMMUNICATION, WITH REPORT:

"CHICAGO, Ill., Sept. 28, 1894.

*Hon. Frank Wenter, President, Board of Trustees, Sanitary District of Chicago, Chicago, Illinois.*

SIR—Some months ago I wrote to you informing you that the contractors for the dredging of the eastern end of the Drainage Channel were dumping material at unauthorized places and seriously obstructing navigation. This practice has not ceased, and I have to request

your Board to place the necessary inspectors on the tow boats and dredge scows, to see that the material from that channel is deposited in waters exceeding 35 feet in depth. To-day there is a large vessel aground at the mouth of Chicago River, at a place where six months ago there were 18 feet or more depth of water at extreme low water. This channel has been obstructed, and is being now obstructed by the dumping, contrary to law, of material dredged from the Chicago Drainage Canal.

I am not authorized to expend money from the appropriations for the improvement of Chicago harbor in employing men to watch the employes and contractors of the Drainage Board, but this thing is contrary to law and is entirely within the control of your Board, and I respectfully request that you will take control of it, and see that the United States laws regarding obstructions to navigable channels and waters are not violated by your contractors, or by other parties in the employ of your Board. I enclose herewith extracts from the River and Harbor bill of August 17, 1894, which applies to the case. It is necessary to put an end to this practice and I would much prefer that it be done by your authority, as far as relates to your work, than by Federal machinery, but if you will not take control and govern your contractors and employes I must appeal to the War Department or to Congress for necessary means to stop it by enforcing the laws.

Very respectfully, your obedient servant,

(Signed) W. L. MARSHALL,  
*Captain, Corps of Engineers."*

(Accompanied by copy of Sections 6, 7 and 8 of the River and Harbor Act of August 17, 1894).

—  
"CHICAGO, Oct. 3, 1894.

*Captain W. L. Marshall, Corps of Engineering, U. S. A., 2258 Wabash Ave., Chicago, Ill.*

DEAR SIR—I beg leave to acknowledge the receipt of your letter of September 28, 1894, in reference to the dumping of material by contractors of this District at unauthorized places in the lake and thus obstructing navigation. This District, in common with all good citizens, will join in the severest condemnation of any practice which will increase the difficulties of navigation in the Chicago Harbor. Our contracts for the excavation of Sections N and O of our Main Channel provide that the contractors



shall remove the material excavated from our right of way and make such disposition of it as they shall see fit. It was presumed that they would observe any existing laws as to the disposition of material of the character excavated by them, and that if they did not they would be amenable to the law the same as any other citizens. I am advised by our Law Department that under our contracts there is no provision putting inspectors upon the scows of the contractors, and it is an expense which the District ought not to incur. The matter, it seems to me, is wholly one of police regulation under the supervision of those having charge of the river and harbor, and this District would certainly approve of the strictest enforcement of the existing laws against the placing of obstructions in any portion thereof, and in case of any violation of those laws of the infliction of the severest penalties provided for. I have caused a copy of your communication, together with this reply, to be sent to the contractors for the sections mentioned.

Yours very respectfully,

(Signed)

FRANK WENTER,

*President of the Board of Trustees of the Sanitary District of Chicago.*"

COMMUNICATION FROM STREETER & KENEFICK WITH REFERENCE TO  
SECTION E.

The Clerk presented a communication from Messrs. Streeter & Kenefick, with reference to Section E of the Main Channel, and the communication was read.

Mr. Kelly, seconded by Mr. Gilmore, moved that the communication be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE COMMUNICATION:

"CHICAGO, Ill., Sept. 29, 1894.

*To the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Upon receiving a copy of the resolution adopted by your Board on the 8th day of August, 1894, we proceeded to resume work on Section E, under our contract with your Board, and notified you by letter of August 20th, 1894, which letter is on page 2117 of your Proceedings of date August 22nd, that we had resumed work on said section.

We diligently, and in entire accordance with our contract, continued work on said section, and have continued it, intending in good faith to proceed with the completion thereof in accordance with the terms and conditions of our contract.

We understand, though not officially from your Board, that your Chief Engineer, Mr. Isham Randolph, upon August 28, 1894, notified your Board that he felt constrained to certify that the work upon Section E was being "unnecessarily and unreasonably delayed, and these contractors are persistently violating the conditions and terms of their contract relating to progress." He further recommended that your Board proceed under section of Clause L (failure to complete), of our contract with your Board for said Section E, and advertise for bids for the completion of said work under the contract.

We further understand that in accordance with said recommendation your Honorable Board proceeded to advertise for the completion of said Section E under the Clause L of our said contract, and received bids therefor, and that you have let the said contract to certain parties. Of all of this we have had no notice whatever, and we respectfully protest that this has all been without our consent, contrary to the terms of our contract, and is illegal and void.

We further understand that the contractors to whom the contract for finishing said Section E was let by your Honorable Board, propose doing the said work for the sum of twenty-seven (27) cents per cubic yard as to all material except solid rock, and as to solid rock, seventy (70) cents per cubic yard.

In the past we have in good faith urged upon your Honorable Board, a reclassification of the material upon said Section E, and have earnestly protested that the work could not be done for the contract price named in our original contract with your Board. Finding, however, that there are contractors who are willing to attempt to do this work for even less than our contract price, we have no desire to stand in the way of such attempt, or to in any manner interfere with the progress of the work upon the drainage canal.

As this work is let by your Honorable Board under Section L of our contract, we shall claim, if the same is completed in accordance with the terms and conditions of the contract made with Messrs. Angus & Gindele, the difference between



the contract price of Messrs. Angus & Gindele, and the contract price in our original contract.

Therefore, without waiving any of our legal rights, and reserving to ourselves all actions that we may be legally entitled to against your Honorable Board, we will deliver to your Board, or to the contractors authorized by your Board to accept the same, the possession of said Section E at any time desired by your Honorable Board.

Very respectfully,

(Signed) STREETER & KENEFICK."

COMMUNICATION CONCERNING CONDITION OF LEVEE AND TRESTLE ON SECTION A.

The Clerk presented a communication from Messrs. Heldmaier & Neu, contractors on Section A, with reference to the condition of the levee and trestle on that section; and the communication was read.

Mr. Eckhart, seconded by Mr. Cooley, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

THE COMMUNICATION:

"MOUNT FOREST, Ill., Oct. 1, 1894.

*The Honorable Board of the Sanitary District of Chicago, Chicago, Ill.:*

GENTLEMEN—You are aware of the necessity of having the levee between the River Diversion and the Main Channel on Section A completed on or before December, 1894.

We have been struggling along with the trestle you built for several hundred feet, and had to keep constantly thirty-five to forty-five men on the dump, while if the trestle were substantial, from twelve to sixteen would have done the work.

We further spent several hundred dollars for timber, braces and iron rods to use in keeping the bents together.

At present the trestle is in such a condition that we cannot go on it without the risk of losing our machinery in the mud, and probably killing some of our employees.

We therefore have come to the conclusion of having additional piles driven for a distance of 300 to 400 feet, where the deepest mud is, and where it seems the piles driven have not reached the hard material. We have given Messrs. Heidreich & Company the order to go on

with the work at the cost of about two thousand (\$2,000) dollars, and we hope you will assist us in paying this bill; we agree to stand one-half this expense, and surely you should pay the other. It will require about 100 to 120 fifty-foot piles, and about ten to fifteen caps, besides some iron and drift bolts.

For quite a distance the stringers have been taken away and used by Messrs. Griffiths & McDermott; these we hope they will replace at once, for we are making no preparation for new ones.

We remain,

Yours very respectfully,

(Signed) HELDMAIER & NEU,

By P. W. NEU."

PROPOSITION FOR PURCHASE OF MUCK ON SECTIONS N AND O.

The Clerk presented a communication from the Brownell Improvement Company, making proposition for the purchase and removal of muck from the right of way on Sections N and O, as set forth in the communication; and the communication was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

THE COMMUNICATION:

"October 3, 1894.

*Honorable Commissioners, Sanitary District of Chicago.*

GENTLEMEN—We desire your permission to strip and remove the muck or top soil from the right of way of Sections N and O to a depth not exceeding two feet. As the grade at this point is some 12 feet above datum, there would seem to be an advantage to the District to have it removed. Any expense of re-setting grade stakes as suggested by the Chief Engineer, we will pay.

We will also pay 2 cents per cubic yard for all material removed outside of the proposed channel of the canal.

Respectfully submitted,

(Signed) BROWNELL IMP. CO."

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

Clerk.

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

OCTOBER 10, 1894.

#### OFFICIAL RECORD.

*Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and forty-second regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, October 10, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Kelly, Prendergast, Russell and Wenter—seven (7), and subsequently Messrs. Altpeter and Gilmore, making a total of nine (9) members, were present.

#### MINUTES.

The minutes of the regular meeting

held October 3, 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Boldenweck.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### *Construction Account—*

Griffiths & McDermott (Sec. 1, Oct. 1, 1894) ..	\$10,319 45
McArthur Bros. (Sec. 2, Oct. 1, 1894) .....	5,887 00
Gilman & Co. (Sec. 3, Oct. 1, 1894) .....	14,860 19
McArthur Bros. (Sec. 4, Oct. 1, 1894) .....	14,238 79
The Qualey Construction Co. (Sec. 5, Oct. 1, 1894) .....	4,065 25
Mason, Hoge & Co. (Sec. 6, Oct. 1, 1894) ..	5,457 38
Mason, Hoge & Co. (Sec. 7, Oct. 1, 1894) ..	19,847 63

Mason, Hoge, King & Co. (Sec. 8, Oct. 1, 1894).....	\$16,016 00
Halvorson, Richards & Co. (Sec. 9, Oct. 1, 1894).....	24,492 65
E. D. Smith & Co. (Sec. 10, Oct. 1, 1894).....	23,940 00
Mason, Hoge & Co. (Sec. 11, Oct. 1, 1894).....	8,043 87
Mason, Hoge & Co. (Sec. 12, Oct. 1, 1894).....	8,043 87
Mason, Hoge & Co., (Sec. 13, Oct. 1, 1894).....	8,437 40
Smith & Eastman (Sec. 14, Oct. 1, 1894).....	7,045 50
Heldmaier & Neu (Sec. A, Oct. 1, 1894).....	14,677 18
Western Dredging & Improvement Co. (Sec. C, Oct. 1, 1894).....	6,215 84
E. D. Smith & Co. (Sec. D, Oct. 1, 1894).....	14,077 70
Gahan & Byrne (Sec. G, Oct. 1, 1894).....	3,504 97
Gahan & Byrne, (Sec. H, Oct. 1, 1894).....	7,623 16
Christie & Lowe (Sec. I, Oct. 1, 1894).....	7,645 32
Christie & Lowe, (Sec. K, Oct. 1, 1894).....	7,619 07
The Heidenreich Co. (Sec. L, Oct. 1, 1894).....	2,623 55
The Heidenreich Co. (Sec. M, Oct. 1, 1894).....	6,093 78
Hayes Bros., et al., (Sec. N, Oct. 1, 1894).....	2,662 54
Mc Mahon & Montgomery Co., et al., (Sec. O, Oct. 1, 1894).....	5,244 23
Mason, Hoge & Co. (Sec. 6, extra—special work, retaining embankment, Oct. 1, 1894).....	1,495 00
Mason, Hoge & Co., (Sec. 7, extra work, dimension stone and rip rap work, Oct. 1, 1894).....	1,493 00
	—————\$251,675 32

## CLERICAL DEPARTMENT.

Thos. F. Judge, (postage stamps).....	\$20 00
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## GENERAL ACCOUNT.

H. J. Armstrong & Co. (binding bids).....	\$ 5 50
John F. Higgins (printing proceedings Sept. 1894).....	173 59
Chicago Telephone Co. (telephone, Chicago to Lockport, July to October, 1894).....	552 71
J. P. Lucas (electric buzzer system).....	33 75
	—————\$765 55

## POLICE DEPARTMENT.

John Larney, (horse feed, etc).....	\$ 45 99
Grand Total.....	<u>\$252,506 86</u>

Mr. Kelly, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending October 6, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, Oct. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending October 6, 1894, as the same have been reported to me:

Engineering Department.....	137
Clerical Department.....	4
Law Department.....	7
Treasury Department.....	1
Police Department.....	47

Total employes..... 196

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

## MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of September, 1894.



The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

“CHICAGO, Oct. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to herewith report that the total amount expended on account of and charged to the Clerical Department during the month of September 1894, was \$896.16, divided as follows:

Salaries.....	\$891 66
General expenses.....	4 50
Total.....	<u>\$896 16</u>

There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$950.

The total amount expended and charged to the General Account during the month of September, 1894, was \$5,622.00, divided as follows:

Salaries.....	\$ 2,568 33
Engraving and printing bonds...	1,255 00
Advertising.....	1,506 04
General expenses.....	292 63
Total.....	<u>\$5 622 00</u>

There are outstanding liabilities against the General Account to the amount of about \$50, for advertising, and the expenses for the present month will be about \$5,500.

During the month of September, 1894, there were warrants authorized and drawn for \$642,377.69 against the various accounts, as follows:

Engineering Department.....	\$ 15,851 88
Clerical Department.....	896 16
Law Department.....	4,112 97
Treasury Department.....	166 67
General Account.....	5,622 00
Engineering Department (Construction Account).....	559,382 26
Law Department (Land Account).....	52,340 84
Police Department.....	4,004 91
Total.....	<u>\$642 377 69</u>

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the

Law Department for the month of September, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

“CHICAGO, Oct. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith the monthly report for September, 1894. The total amount paid out by this Department during the month is as follows:

*Salaries.*

Attorneys.....	\$1,170 00
Office force.....	320 00
	<u>\$1,490 00</u>

*General Expenses.*

Court costs.....	\$ 67 00
Right of way.....	1,036 00
Expense account.....	80 43
Legal services.....	1,401 67
Printing and Stationary	36 70
Sundries.....	1 17
	<u>\$2,622 97</u>

*Land Account.*

Right of way (for which deeds have passed)...	\$43,485 84
Abstract Account, (Cook County).....	8 855 00
	<u>\$52 340 34</u>
Total.....	<u>\$56,453 31</u>

During the month the purchase of that portion of the Flaherty-McCormick tract falling within the right of way of the District for which negotiations have been so long pending was concluded. The litigation which had been carried on so long between the parties had reached such a stage that the District was enabled to complete the acquirement of the tract needed. This was done by the entering of a verdict and order of judgment thereon in court, and also by the taking of quit-claim deeds from the parties in interest.

The preparation of the contracts for the completion of the work on Section E received the attention of the department and a contract was also drawn up providing for the excavation of muck from the River Diversion this side of the Wil-low Springs Highway.

The question of railroad crossings has continued to receive consideration.

Respectfully submitted,

(Signed) GEO. E. DAWSON,  
Attorney."

PURCHASE OF ADDITIONAL "MCWEENEY"  
LANDS.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the purchase from John McWeeney of certain additional right of way lands in Will County, and authorizing and directing the Clerk to pay for the said additional right of way lands, on the voucher of the Attorney, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said John McWeeney, on the voucher of the Attorney, for the said additional right of way lands, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said John McWeeney, on the voucher of the Attorney, for the said additional right of way lands, as provided in the report.

The following is

THE REPORT:

"CHICAGO, Oct. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering have reached an agreement with John McWeeney for the purchase from him, for the corporate purposes of this District, of the land hereinafter described for the sum of eight hundred (\$800) dollars.

Your Committee recommend that the Clerk of this District be authorized and directed to pay, on the voucher of the Attorney, to said John McWeeney the sum of eight hundred (\$800) dollars in full payment for the following described premises, to-wit:

Block one hundred and thirty-nine (139) in Lockport as laid out by the Canal Commissioners on Section twenty-three (23), Township thirty-six (36) North, Range ten (10), East of the Third Principal Meridian, said premises lying and being situate in the County of Will in the State of Illinois.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

THOMAS KELLY,  
L. E. COOLEY,  
WM. BOLDENWECK,  
W. H. RUSSELL,  
JOHN J. ALTPETER,

*Joint Committee on Finance and Engineering."*

REPORT ON CONDITION OF LEVEE AND  
TRESTLE ON SECTION A.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a communication from Heldmaier & Neu, Contractors for Section A, concerning the condition of the levee and trestle on said Section, presented and referred to that Committee at the meeting held October 3, 1894, (page 2249 of the Proceedings), and recommending that the request contained in the communication be denied; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosure, placed on file, and the recommendation made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, and the recommendation made in the report concurred in.

The following is

THE REPORT:

"CHICAGO, Oct. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the request of Heldmaier & Neu that this District



should share in the expense of maintaining the trestle on Section One (1), referred to this Committee at the meeting held October 3, 1894, (page 2249 of the Proceedings) the following report is submitted:

Said trestle was constructed by the District for the purpose of filling in the levee across certain soft ground adjacent to the river, as finally established. A special agreement was made with these contractors, among other things, for the filling of this trestle. (See Proceedings, February 10, 1894, page 1738). In this agreement the following clause is cited: "and that the pile trestle between said stations be accepted and maintained by second party for this work until same is completed."

It appears, therefore, that no liability attaches to the District for any deficiencies which the trestle may have developed and that the contractors have obligated themselves to maintain the same, and it is therefore recommended that the request of Heldmaier & Neu be denied.

The communication is herewith returned for filing.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.  
B. A. ECKHART,  
WM. BOLDENWECK,  
THOMAS KELLY,  
JOHN J. ALTPETER,  
W. H. RUSSELL,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure.)

REPAIRING LEVEES ON SECTIONS 6, 7  
AND 10.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, authorizing and directing the Chief Engineer to have the levees on Sections 6, 7 and 10 repaired by the contractors on said sections under conditions as set forth in the report; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Chief Engineer authorized and directed as provided in the report.

On roll-call the vote stood: Yeas—

Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Chief Engineer authorized and directed, as provided in the report.

The following is

THE REPORT:

"CHICAGO, Oct. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Committee has had under advisement at various times on recommendation of the Chief Engineer, certain minor work in connection with the river diversion and the main levee adjacent thereto, to the end that the same shall be finally completed. Some small quantities yet remain to be removed, and the levee requires certain protection and raising to grade through the muck where settlement has been anticipated. At this time specific authority is requested as follows:

It appears that the levees on Sections Six (6) and Seven (7) were completed, with a liberal allowance for settlement, except in respect to riprapping the face thereof as provided in the agreement of February 14, 1894, which was continued in the terms of the assignment of April 20th. This levee was constructed on a bad foundation from soft material removed from the river diversion, and it has settled below grade in many places. It should be raised to the standard height with hard material which will also act as a protection against the elements and vermin. We accordingly recommend that the Chief Engineer be instructed to have the levees on Sections Six (6) and Seven (7) put in proper condition by the contractors for said sections, provided that the amount of hard material to be used shall not exceed 15,000 cubic yards at a cost of twenty-five cents (25) per yard, and further that he cause said levees to be suitably riprapped as provided in the agreement of February 14, 1894.

It appears further that the earth core of the levee on Section Ten (10) has shrunk in places owing to the character of the material and the presence of frost when the same was placed, and that the safety of the work requires the repair of the same. It is therefore recommended



that the Chief Engineer be instructed to cause the same to be properly repaired by the contractor for Section Ten (10), at cost, provided that the District shall not be liable on this account for an amount exceeding five hundred and forty dollars (\$540).

These recommendations are based on quantities and prices as determined by the Chief Engineer on consultations with the contractors, and the work is provided for under the general clause of the contracts providing for extra work.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.  
B. A. ECKHART,  
WM. BOLDENWECK,  
THOMAS KELLY,  
JOHN J. ALTPETER,  
W. H. RUSSELL,

*Joint Committee on Engineering and Finance."*

#### REPORT ON PROPOSITION FOR PURCHASE OF MUCK ON SECTIONS N AND O.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a communication from the Brownell Improvement Company, making proposition for the purchase and removal of muck from Sections N and O, presented and referred to that Committee at the meeting held October 3, 1894 (page 2249 of the Proceedings), recommending that the request contained in the communication be not granted; and the report was read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed, and, with enclosure, placed on file, and the recommendation made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—nine (9). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, and the recommendation made in the report concurred in.

The following is

#### THE REPORT:

"CHICAGO, Oct. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee has considered the request of the Brownell Improvement Company, referred at the meeting held October 3, 1894, (page 2249 of the Proceedings) and report as follows:

It appears that the said company, in the furtherance of its contract with the South Park Board, has arranged with the Contractors for Section N to strip off the top soil and remove the same, and that permission has been granted by the Chief Engineer to also remove the top soil for an extra width of ninety (90) feet, the same covering the additional width of the final channel. They further request permission, for a nominal compensation, to remove the top soil elsewhere on the right of way.

The Committee doubts the propriety of granting this request, except with the full concurrence of the Contractors for Section N, nor is it prepared to recommend a privilege of this kind without obtaining prices by competition. The matter also involves unsettled questions of policy in regard to the future disposition of the surplus material of the District, and a precedent of this nature is not justified at this time.

We therefore recommend that the request be not granted, and herewith return the communication for filing.

Respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.  
B. A. ECKHART,  
WM. BOLDENWECK,  
THOMAS KELLY,  
JOHN J. ALTPETER,  
W. H. RUSSELL,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure.)

#### REFUSAL OF CONTRACTOR TO COMPLETE LEVEE ON SECTION 3.

The Clerk presented a communication, addressed to President Wenter, by Gilman & Company, contractors on Section 3, declining to enter into the agreement for the completion of the levee on said section, presented and approved by

the Board at the meeting held August 29, 1894, (page 2166 of the Proceedings); and the communication was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the communication be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE COMMUNICATION:

"WILLOW SPRINGS, ILL., Oct. 3, 1894.

*Hon. Frank Wenter, President, Board  
Drainage Trustees, Chicago, Ills.*

DEAR SIR—Referring to matter of signing contract for construction of outer levee on Section 3, beg leave to say, some time since we made a proposition to Chief Engineer Randolph to construct the same for 17 cents per cubic yard, embankment measurement, to be constructed of glacial drift or rock. Our reason for this was as follows; There still remains enough glacial drift on the west end of section to construct probably one-half of same; on the upper or east end, the glacial drift has been removed. It would be impossible, at the price named, to build an earth core on the east half of the section. We are removing the top lift of rock on the east end of our section with cars, grading for our cable-way towers. In order to load same on cars by hand it has to be reduced to small dimensions, making consequently a good deal of shovel muck. We are satisfied the material thus obtained will compact close enough to make a good and sufficient levee for either a turnpike or rail-

road grade. We have at the present time a levee of sufficient height and width, being above Engineer's requirements, constructed of earth next to the canal.

We stand ready to carry out our proposition as made to Chief Engineer Randolph, and should you see fit to eliminate clause as to earth core, will sign and carry out contract to completion.

Respectfully yours,

(Signed)

GILMAN & Co.,

*Contractors Section 3."*

CONSIDERATION OF SALE OF MUCK ON SECTION N.

Mr. Gilmore, seconded by Mr. Pendergast, moved that the President and Clerk, with the advice of the Chief Engineer and Attorney, be directed to advertise for the sale of the muck on Section N, provided the consent of the contractors on said Section to such sale can be secured.

After discussion, Mr. Boldenweck, seconded by Mr. Altpeter, moved that the subject matter of the motion be referred to the Joint Committee on Finance and Engineering, with instructions to report back to the Board.

The motion prevailed unanimously, and the subject matter was so referred.

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

October 10,]

—2257—

[1898.



# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

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OCTOBER 17, 1894.

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#### OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and forty-third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, October 17, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7) members, were present.

#### MINUTES.

The minutes of the regular meeting held October 10, 1894, were approved

as printed, on motion of Mr. Kelly, seconded by Mr. Boldenweck.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### *Construction Account—*

Alfred Roebuck (Sec. 8, completing Stephens Street highway and bridge approaches, Oct. 16, 1894).....	\$500 00
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#### ENGINEERING DEPARTMENT.

Barnard & Hornstein, (printing bridge specifications).....	\$175 00
Eugene Dietzgen Co. (drafting material)...	55 49
Chicago Blue Print Paper Co., (drafting material).....	4 32

Rand, McNally & Co. (maps).....\$	4 00	
F. Mayer & Co. (blue prints).....	111 65	
Chicago Photo Engraving Co. (blue prints).	23 00	
Multi-Color Printing Co. (black prints)...	1 56	
Seelig & Kandler, (re- pairing instruments)	21 10	
Geneva Optical Co., (photograph sun- dries).....	25 90	
Hibbard, Spencer, Bart- lett & Co. (hardware)	46 20	
The Tobey Furniture Co., (furniture).....	42 00	
Edward Hines Lumber Co. (lumber).....	11 91	
Marder, Luse & Co. (lead type).....	3 61	
Waukesha Hygeia Min- eral Springs Co. (wa- ter).....	15 00	
C. S. Austin, (ice).....	9 00	
'The Consumers' Pure Ice Co. (ice).....	2 70	
Geo. Brainard, (gauge reading, Sept., 1894)..	10 00	
Wm. Kirkham, (gauge reading, Sept., 1894)..	10 00	
E. Hastings, (gauge reading, Sept., 1894)..	10 00	
Mary Rusk, (gauge reading, Sept., 1894)..	10 00	
Patrick McGinnis, (gauge reading, Sept., 1894).....	10 00	
		\$602 44

## CLERICAL DEPARTMENT.

Cameron, Amberg & Co. (stationery).....	\$1 50	
A. C. McClurg & Co. (stationery).....	1 87	
Jacobs, Coles & Co. (stationery).....	4 75	
P. F. Pettibone & Co. (stationery).....	5 15	
J. Underwood & Co. (stationery).....	4 00	
		\$17 27

## LAW DEPARTMENT.

Jacobs, Coles & Co. (stationery).....	\$1 80	
Stromberg, Allen & Co. (printing).....	5 50	
A. C. McClurg & Co. (stationery).....	9 18	
J. Underwood & Co. (stationery).....	4 00	
Barnard & Gunthorp, (printing briefs).....	17 00	
Chicago Telephone Co. (toll service).....	4 35	
		\$41 83

## GENERAL ACCOUNT.

<i>The Chicago Record</i> (re-advertising Sec. E).....	\$17 00
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<i>The Chicago Daily News Co.</i> (re adver- tising Sec. E).....\$	25 50
<i>The Inter Ocean</i> (re- advertising Sec. E)...	12 00
John R. Wilson, Pub- lisher <i>Chicago Even- ing Journal</i> (re-ad- vertising Sec. E).....	13 50
<i>Frie Presse</i> (re adver- tising Sec. E).....	13 75
	\$81 75

## POLICE DEPARTMENT.

L. C. Chase & Co. (blan- ket).....	\$ 8 79
Daniel E. Tracy (horse shoeing).....	17 70
	\$26 49
Grand total.....	\$1,269 78

Mr. Eckhart, seconded by Mr. Kelly, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 483, Law Department (sta- tionery).....	\$ 79 50
No. 511, Engineering Depart- ment (sundries).....	309 53
No. 512, Engineering Depart- ment (sundries).....	286 13
No. 513, Engineering Depart- ment (sundries).....	247 61
Total.....	\$ 922 77

Mr. Eckhart, seconded by Mr. Cooley, moved that Requisitions No. 483, for the Law Department, and Nos. 511, 512 and 513, for the Engineering Department, as read and shown above, be referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and Requisitions No. 483, for the Law Department, and Nos. 511, 512 and 513, for the Engineering Department, as read and shown above, were so referred.

## WEEKLY REPORT ON EMPLOYES.

The Clerk presented a report, in ac-

cordance with the rules, showing the number of persons in the employ of the District for the week ending October 13, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Oct. 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending October 13, 1894, as the same have been reported to me:

Engineering Department.....	139
Clerical Department.....	4
Law Department.....	7
Treasury Department.....	1
Police Department.....	47
Total employes.....	198

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

PERMISSION TO SPOIL OUTSIDE OF RIGHT OF WAY ON SECTION M.

The Clerk presented a report from the Superintendent of Construction (in the absence of the Chief Engineer) with reference to and accompanied by a communication from The Heidenreich Company, Contractors for Section M, asking permission to spoil material on that section on Sanitary District lands outside of the right of way, as set forth in the report and accompanying communication; and the report and accompanying communication were read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the report be adopted, with accompanying communication, ordered printed and placed on file, the recommendations made in the report concurred in, and permission given The Heidenreich Company, as set forth in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, with accompanying communi-

cation, ordered printed and placed on file, the recommendations made in the report concurred in and permission given The Heidenreich Company, as set forth in the report.

The following is

THE REPORT, WITH ENCLOSURE:

"CHICAGO, Oct. 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In the absence of Chief Engineer Randolph, I enclose herewith a communication from The Heidenreich Company, contractors for Section M, asking permission to waste some material on a triangular tract belonging to the Sanitary District adjacent to the regular right of way boundary at the east end of the section. This tract contains about 1½ acres, which is about equal to the area cut off by the Santa Fe R. R. "Y." It is important that an early decision be made, and I respectfully recommend that such permission be granted.

Yours respectfully,

(Signed) U. W. WESTON,  
Supt. of Construction."  
(One (1) enclosure.)

(Enclosure)

Office of  
THE HEIDENREICH COMPANY. }  
CHICAGO, ILL., Oct. 17, 1894. }

*Isham Randolph, Esq., Chief Engineer  
Sanitary District of Chicago:*

DEAR SIR—At the east end of Section M we are crowded for room for our excavated material on account of the Santa Fe Railroad "Y," which cuts off the greatest part of the spoil area for a distance of nearly 300 feet on the south side of Channel. We find that the Sanitary District happens to own a triangular piece of ground north of the regular right of way at the east end of Section M. We would ask permission to fill up this piece of land about five feet or even less. If anything, it ought to increase the value of this land, and would give us room for about 10,000 cubic yards of material at a place where we are in great need of more spoil area.

Hoping that we can have permission to do this, we remain,

Yours very truly,  
(Signed) H. A. BOEDKER,  
Vice President."



## REPAIRS ON DAM NO. 1 AT JOLIET.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, transmitting a report from the Chief Engineer to that Committee, and recommending the payment to the Board of Canal Commissioners of the Illinois and Michigan Canal of a certain sum for the repair of Dam No. 1, at Joliet, under conditions as set forth in the report, and directing the Attorney and Chief Engineer to draw up and report to the Board a proper agreement; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, with enclosure, ordered printed, and placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—Mr. Altpeter—one (1).

Upon which result the President declared the motion carried, the report adopted, with enclosure, ordered printed, and placed on file, and the recommendations made in the report concurred in.

The following is

THE REPORT, WITH ENCLOSURE:

“CHICAGO, Oct. 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On June 27, 1894, (page 2026 of the Proceedings) this Committee submitted a report and the text of an agreement with the Canal Commissioners of the Illinois and Michigan Canal in regard to the repair and raising and strengthening of the east bank of Basin No. 1, at Joliet, which work was entered upon and is now nearing completion.

In the same report, the proposition to repair Dam No. 1 was discussed, but no conclusion having been reached, the matter was reserved for further consideration, with the statement, however, that any conclusion arrived at would be reported in time for construction during autumn months.

The Canal Board has been loath to expend money in any permanent repairs which would be rendered useless by the changes that would be made by the District. On the other hand, the Committee has not been disposed to expend any money except as it was clear that such expenditure would contribute to its future and necessary work. The Committee, however, is of the opinion that the *status*

*quo* should be maintained until the permanent works of the District are undertaken, and that the Canal Board should not be expected to assume the obligation.

The report of the Chief Engineer, hereto appended, estimates that the expenditure of one thousand (\$1,000) dollars will be sufficient to maintain navigation another season and until permanent works are undertaken.

Your Committee therefore recommends that one thousand (\$1,000) dollars be paid to the Canal Board, on condition that they make such repairs as may be necessary to maintain navigation in the manner suggested by the Chief Engineer, and that the money shall not be applied to any form of permanent work, and provided that the District be thereby relieved of all further liability in the premises.

We recommend that the Attorney and Chief Engineer be directed to draw a proper agreement in the premises, and report the same to the Board.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*

B. A. ECKHART,  
WM. BOLDENWECK,  
W. H. RUSSELL,  
THOMAS KELLY,

*Joint Committee on Engineering and Finance.”*

(One (1) enclosure.)

(Enclosure)

“CHICAGO, Sept. 18, 1894.

*To the Joint Committee on Engineering and Finance:*

GENTLEMEN—On Thursday last, pursuant to your direction, I visited Joliet for the purpose of investigating further the extent of necessary repairs to Dam No. 1 and the methods which appear most feasible for accomplishing the work.

It seems to me that navigation could be kept up for at least another year by reinforcing the rip-rap deposit with which repairs have already been made, and if this is done the outlay ought not to exceed one thousand (\$1,000) dollars. If this method is rejected a timber crib filled with stone seems to be the next best thing, and this will cost about four thousand (\$4,000) dollars. (See my previous report upon the subject, dated August 31).

I was met at the site of the work by Superintendent Ryan of the Canal Board, with whom I discussed the ways and means of doing the work. He did not favor the suggestion of repairing with rip-rap but promised to report it to his Board and to advise me how it was received.

Yours truly,

(Signed)

ISHAM RANDOLPH,

*Chief Engineer."*

REPORT ON REPAIRS ON SPILLWAY AT SUMMIT.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a report from the Chief Engineer to that Committee, concerning repairs on and extra expenditures incurred in completing the Spillway at Summit, and recommending that the necessary additional amount, as set forth in the report, be authorized; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, with enclosures, ordered printed and placed on file, the recommendations made in the report concurred in, and the additional amount, as set forth in the report, authorized.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Excused and not voting—Mr. Altpeter—one (1). Nays—None.

Upon which result the President declared the motion carried, the report adopted, with enclosure, ordered printed and placed on file, the recommendations made in the report concurred in, and the additional amount, as set forth in the report, authorized.

The following is

THE REPORT, WITH ENCLOSURE:

"CHICAGO, Oct. 17, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee has considered the appended communication of the Chief Engineer in regard to extra expenditures incurred in repairing the Spillway.

It appears that all of this work was executed in freezing weather, and some of it during a period of very low temperature, and that it was not deemed wise to finally finish up the concrete work until

the effects of frost thereon had been determined. The sum of \$2,291.31 has been expended in making repairs, and it is recommended that this additional amount be authorized. This completes the Spillway as originally designed.

Very respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

B. A. ECKHART,

WM. BOLDENWECK,

THOMAS KELLY,

W. H. RUSSELL,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure.)

(Enclosure)

"CHICAGO, Oct. 15, 1894.

*To the Joint Committee on Engineering and Finance:*

GENTLEMEN—I submit herewith voucher in favor of McArthur Brothers Company, for completed Spillway, showing balance due them \$4,762.02.

The authorized cost of this Spillway was \$18,227.10; but before the work could be completed, winter set in and considerable damage was done by frost. I have had the work completed at a total cost of \$20,518.41, which amount is \$2,291.31 in excess of the sum fixed by you December 13, 1893, (see page 1615 of Proceedings).

Please procure the necessary order for the payment of the voucher in its present form.

Yours very truly,

(Signed)

ISHAM RANDOLPH,

*Chief Engineer."*

MAPS AND BOOKS FOR PUBLIC SCHOOLS.

Mr. Boldenweck presented an order, authorizing and directing the Chief Engineer to prepare 250 maps and books, descriptive of the Main Channel, for the use of the public schools, as set forth in the order; and the order was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Chief Engineer authorized and directed in accordance with the same.

The following is

THE ORDER:

"WHEREAS, The Principals, Teachers and pupils of our public schools are taking great interest in the work of the Main Drainage Channel of the Sanitary District of Chicago, and in order that they may obtain a clearer idea of said work, be it

*Ordered*, That the Chief Engineer be and he is hereby authorized and directed to prepare and deliver to Mr. A. G. Laue, Superintendent of Schools, two hundred and fifty (250) maps and books, containing a history and a concise report of the work on said Main Drainage Channel."

EXPENSE OF CONTRACTING FOR COMPLETION OF SECTION E TO BE CHARGED TO THE ORIGINAL CONTRACTORS.

Mr. Eckhart, seconded by Mr. Bolden-

weck, moved that the Clerk be directed to charge the expense of contracting for the completion of Section E (advertising, etc.) to Streeter & Kenefick, the original contractors for that section.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the Clerk directed to charge the expense of contracting for completion of Section E (advertising, etc.) to Streeter & Kenefick, the original contractors for that section.

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*







# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

OCTOBER 24, 1894.

#### OFFICIAL RECORD.

(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)

#### REGULAR MEETING.

The two hundred and forty-fourth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, October 24, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Eckhart, Kelly, Russell and Wenter—six (6), and subsequently Messrs. Gilmore and Cooley, making a total of eight members, were present.

#### MINUTES.

The minutes of the regular meeting held October 17, 1894, were approved

as printed, on motion of Mr. Eckhart, seconded by Mr. Boldenweck.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### Construction Account—

Griffiths & McDermott (Sec. 1, Oct. 16, 1894).	\$11,952 70
McArthur Bros. (Sec. 2, Oct. 16, 1894).....	11,410 87
Gilman & Co. (Sec. 3, Oct. 16, 1894).....	20,723 85
McArthur Bros. (Sec. 4, Oct. 16, 1894).....	11,769 19
The Qualey Construc- tion Co. (Sec. 5, Oct. 16, 1894).....	6,912 94
Mason, Hoge & Co. (Sec. 6, Oct. 16, 1894)..	3,945 37
Mason, Hoge & Co. (Sec. 7, Oct. 16, 1894).	14,547 75
Mason, Hoge, King & Co. (Sec. 8, Oct. 16, 1894) .....	18,313 75



Halvorson, Richards & Co. (Sec. 9, Oct. 16, 1894).....	\$16,956 44
E. D. Smith & Co. (Sec. 10, Oct. 16, 1894).....	18,620 00
Mason, Hoge & Co. (Sec. 11, Oct. 16, 1894).....	10,401 56
Mason, Hoge & Co. (Sec. 12, Oct. 16, 1894).....	13,314 00
Mason, Hoge & Co., (Sec. 13, Oct. 16, 1894).....	14,585 60
Smith & Eastman (Sec. 14, Oct. 16, 1894).....	7,862 75
Wright, Meysenburg, Sinclair & Carry (Sec. 15, Oct. 16, 1894).....	2,493 75
Heldmaier & Neu (Sec. A, Oct. 16, 1894).....	16,782 89
Western Dredging & Improvement Co. (Sec. C, Oct. 16, 1894).....	4,743 97
E. D. Smith & Co. (Sec. D, Oct. 16, 1894).....	7,644 01
Ricker, Lee & Co. (Sec. F, Oct. 16, 1894).....	1,261 41
Gahan & Byrne (Sec. G, Oct. 16, 1894).....	2,646 98
Gahan & Byrne, (Sec. H, Oct. 16, 1894).....	1,260 63
Christie & Lowe (Sec. I, Oct. 16, 1894).....	7,317 18
Christie & Lowe, (Sec. K, Oct. 16, 1894).....	2,596 56
The Heidenreich Co. (Sec. L, Oct. 16, 1894).....	1,909 91
The Heidenreich Co. (Sec. M, Oct. 16, 1894).....	5,540 56
Hayes Bros., et al., (Sec. N, Oct. 16, 1894).....	2,173 50
McMahon & Montgomery Co., et al., (Sec. O, Oct. 16, 1894).....	6,111.52
Mason, Hoge & Co. (Sec. 6, extra—special work, retaining embankment, Oct. 16, 1894).....	780 00
Mason, Hoge & Co., (Sec. 7, extra work, dimension stone, riprap work and earth core, Oct. 16, 1894).....	2,800 00
Heldmaier & Neu (Sec. A, completing levee 692 to 710 and below 710, Oct. 16, 1894).....	612 00
McArthur Bros. Co. (Sec. F, Spillway at Summit, including repairs, etc., final, Oct. 20, 1894).....	4,762 02
	————— \$252,753 66

## LAW DEPARTMENT.

Geo. E. Dawson, (expense).....	\$ 369 80
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## LAW DEPARTMENT.

## Land Account—

The Will County Abstract Co., (opinions of title, Will County)	\$ 612 80
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## POLICE DEPARTMENT.

Charles Lantry (telephone boxes).....	\$ 40 50
Grand total.....	<u>\$253,776 76</u>

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending October 20, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, Oct. 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending October 20, 1894, as the same have been reported to me:

Engineering Department.....	140
Clerical Department.....	4
Law Department.....	7
Treasury Department.....	1
Police Department.....	47
Total employes.....	<u>199</u>

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

## MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of September, 1894.

The same was read, and, on motion of Mr. Boldenweck, seconded by Mr. Eck-

hart, was ordered printed, and, with accompanying classified statement, referred to the Joint Committee on Engineering and Finance.

The following is

THE REPORT:

"CHICAGO, Oct. 3, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the reports of Divisions 1, 2 and 3, showing the detailed operations of the Engineering Department for the month of September.

The expenses for the month of September were as follows:

Pay rolls.....	\$ 14,472.64
Material.....	1,377.63
Contractor's estimates.....	559,382.26

Total for September.....\$575,232.53

I estimate that the expenses for October will be \$550,000, including Contractor's estimates.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,

*Chief Engineer."*

(Accompanied by classified statement).

"CHICAGO, Oct. 18, 1894.

*Isam Randolph, Esq. Chief Engineer:*

DEAR SIR—I herewith submit my report of construction work during the month of September with the tabulated statements showing the amount of work done during the month, the average daily force employed and the condition of the work up to the 1st inst.

The month of September was not as favorable for doing work as the preceeding one, yet on the whole the result was quite satisfactory, averaging 112 3-10 per cent of the monthly contract requirements.

**Section O**—On this section up to the 24th inst. all work was done with steam dipper dredges. On the 24th a force of men, teams and dump cars resumed work just east of Western Avenue Boulevard on recently acquired right of way. During the month three to four dredges were employed daily, one of which worked nights also. About 61,000 cubic yards of material were thus excavated and taken away in dump scows, averaging about 186 cubic yards per scow.

The average output for the 27 working days was 2260 cubic yards per day, and for each dredge per shift of 10 hours, 520 cubic yards.

The material taken out with dump cars was deposited in low places north of the Main Channel and is not included in the September estimate, which was made before this work was started.

*Plant in Operation.*

Steam dipper dredges.....	4
Tug boats.....	4
Dump scows.....	12
Small dump cars.....	28
Dump wagons.....	6
Plows.....	2

*Idle.*

Steam dipper dredge.....	1
Small dump cars.....	17
Dump wagons.....	3
Wheel scrapers.....	27
Plows.....	2

**Section N**—The only work on this section during the month was done with wheel scraper and wagon outfits to the amount of 22,200 cubic yards, which was disposed of in filling up low places, street filling, etc. The section is not yet accessible for dredge work.

*Plant in Operation.*

Inclines.....	2
Wagons.....	12
Wheel scrapers.....	10
Plows.....	2

*Idle.*

Wheel scrapers.....	10
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**Sections M and L**—On Section M, two steam shovels, in connection with inclined conveyors, worked every day and one of them every night, excepting Saturday and Sunday nights.

On the 17th ult., a new steam shovel and incline conveyor was installed. The latter is built of steel of an improved pattern, giving the men in the pit control over the returning empty cars.

On the 19th, the shovel in the North cut near the east end of the section encountered a bed or pocket of quick sand, requiring the installation of a special pumping plant at that point. The work was retarded several days by this quick sand, which, when dumped from the cars ran back under the conveyor and obstructed its movement.

On Section L, one steam shovel and incline conveyor worked all the month. Their steam pumps were operated when

necessary and kept the pits dry enough for working even during the heavy rains at the beginning of the month. A force of men, teams and scrapers was constantly engaged in trimming down the slopes.

The output on both sections for the month was 85,300 cubic yards, an average of 770 cubic yards per steam shovel per day of ten hours, and equal to 120 per cent of the contract requirement.

#### *Plant in Operation.*

Steam shovels.....	4
Incline conveyors.....	4
Steam pumps.....	3
Wheel scrapers.....	10
Plows.....	2
Wagons.....	3

#### *Idle.*

Wheel scrapers.....	16
Drag scrapers.....	6
Plows.....	2
Dump cars.....	36
Steam hoist.....	1
Wagons.....	2

*Sections K and I*—On Section K, work was continued with one steam shovel in connection with a truss bridge conveyor, its output being 29,400 cubic yards in forty-nine ten hour shifts, an average of 600 cubic yards per day; and with "New Era" graders which yielded 29,000 cubic yards in fifty-six and one-half ten hour shifts, an average of about 515 cubic yards per day and equal to 127 per cent of the monthly requirement.

On Section I, two steam shovels with truss bridge conveyors removed 51,500 cubic yards in ninety-two and one-half ten hour shifts, averaging about 555 cubic yards per day, and 12,800 cubic yards were excavated with "New Era" graders in twenty-six and one-half shifts of ten hours each, an average of about 485 cubic yards per day and equal to 141 per cent of the monthly requirement.

The fourth steam shovel and truss bridge conveyor were about ready to commence operation at the end of the month, completing a plant, that at the previous rate of progress will finish the two sections in advance of contract time. This plant is so disposed that two shovels and conveyors will work eastward over Section "I," and two westward over Section "K," completing, sloping and finishing the channel to grade as they go. On the 1st inst., they had nearly 400 feet of channel thus completed.

#### *Plant in Operation.*

Steam shovels.....	3
Truss bridge conveyors.....	3
Steam pumps.....	4
Dynamos.....	3
New Era graders.....	3
Wheel scrapers.....	5
Wagons.....	3
Plows.....	1

#### *Idle.*

Steam shovels.....	1
Truss bridge conveyors.....	1
Large dump cars.....	7
Small dump cars.....	7
Dynamos.....	1
Wheel scrapers.....	55
Drag scrapers.....	15
Dump wagons.....	10
Plows.....	7
New Era graders.....	1
Wheel barrows.....	25

*Section H*—An average daily force of 30 men and 19 teams were employed during the month on Section H. The wet weather of the early part of the month retarded the work on this and Section G, and box culverts have been put in to provide drainage for both these sections. The Hoover & Mason conveyor was started on the 15th, and began removing material, which was loaded with 1 plow and 34 men, and consumed the balance of the month in excavating a pit which must be put down to grade before the capacity and utility of the method can be determined. Meantime, a force of teams and scrapers is also being employed to assist in maintaining progress. The total output for the month was 34,410 cubic yards, equal to 91 per cent of the monthly contract requirement.

#### *Plant in Operation.*

Hoover & Mason conveyor.....	1
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#### *Idle*—None.

*Section G*—Between Stations 354 and 368 the same method of steam shovel and dump car work was continued. The shovel was idle three days on account of rain and one day was lost in moving back and changing track, making the average output for each day actually worked 662 cubic yards, or for the full month, 556 cubic yards. The wet weather also interfered with the operation of the Belt conveyor by causing the dump to slip, breaking off some of the supporting posts, which entailed a loss of six days. The average output per day worked was 419 cubic yards, and per working day 318 cubic yards. A daily average force of 92 men and 34 teams were also employed. The total output for the month



was 30,944 cubic yards—equal to 55 per cent of the required monthly rate.

*Plant in Operation.*

Steam shovels.....	2
Small dump cars.....	42
Steam pumps.....	2
Belt conveyer.....	1

*Idle.*

Steam shovel.....	1
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*Section F*—One steam shovel was employed on this section during the month, which removed but 6,112 cubic yards, due to wet weather, a broken mast, and the difficulty of working down a face in the hard-pan. The second shovel is being rebuilt and is expected to begin work again soon. Nine men were employed at drilling and blasting ahead of the shovel. Three days were lost on account of rain, one day in moving and five days in replacing the broken mast. The output per day worked averaged about 383 cubic yards, and the daily average for the month was 245 cubic yards, being 27 per cent. of the monthly rating.

*Plant in Operation.*

Steam shovels.....	1
Locomotives.....	2
Large air dump cars.....	16
Steam dumps.....	3

*Idle.*

Steam shovels.....	2
Locomotives.....	2
Large air dump cars.....	14
Steam pumps.....	2

*Section E*—Until September 23d three small steam pumps were employed pumping out the shovel pits, and a small force worked on a grade for the steam shovel loading track. During the balance of the month no work was done.

*Section D*—Steam Shovel No. 165 was worked day and night until September 11th, when the new special pattern A frame shovel was placed in the pit and began operation on the 13th. Numerous short delays were caused by small breakages, leaving this shovel idle one day on account of repairs and one day for changing tracks. The other shovel lost two days on account of bad weather. The output for the two shovels was 56,167 cubic yards, an average of 1,221 cubic yards for each day worked, or a daily average for the month of 1,123 cubic yards. Teams, scrapers and New Era graders were also employed, making

the total output 93,912 cubic yards, which is 157 per cent. of the monthly rating.

*Plant in Operation.*

Steam shovels.....	2
Locomotives.....	4
Dump cars.....	40
Steam pumps.....	3
New Era graders.....	2

*Idle—None.*

*Section C*—The rainfall during the early part of the month caused the river to raise unexpectedly, and owing to insufficient provision on the part of the contractors, this section was flooded during the nights of the 10th and 11th, which stopped all steam shovel work for about 15 days, and reduced the output to 15,582 cubic yards, an average of 820 cubic yards per day for the days worked, or a daily average of 208 cubic yards for the full month. But one day was lost on account of repairs, all others being due to the rain and flood. The hydraulic dredge moved 14,669 cubic yards in 46 shifts of 10 hours each, an average of about 320 cubic yards per day; 23,062 cubic yards were handled with men and teams, making the total output 53,313 cubic yards, which is 92 per cent of the monthly rating.

*Plant in Operation.*

Steam shovels.....	2
Hydraulic dredge.....	1
Locomotives.....	4
Large dump cars.....	20
Small dump cars.....	8
Steam pumps.....	3
Dynamo.....	1

*Idle.*

Large dump cars.....	12
Small dump cars.....	8

*Sections B and A*—It was expected to have the cross levee through Section B completed during the month, so that the east half might be unwatered, and sub muck excavation begun on that part, but the levee gave way on the 11th, owing to the increased head occasioned by the early September rains, which prevented any substantial progress on this section. This broken levee is being restored and strengthened pursuant to the above purpose.

On Section A the hydraulic dredges excavated 154,857 cubic yards, equal to 197 per cent of the monthly rating. As the muck overlying these sections has nearly all been removed, no intelligent prediction can be made as to the future progress until the trestle levee shall have been completed and the Main Channel unwatered. The diffi-

culties attendant upon filling in this levee, (referred to in previous reports) have been so increasing as the point of connection is approached, that I do not feel warranted in again fixing a given date for its completion further than to say that it should be closed this year under the most adverse circumstances; at the same time I believe that it can be accomplished much earlier.

*Plant in Operation.*

Hydraulic dredges.....	2
Dipper dredge.....	1
Steam shovel.....	1
Steam boats.....	2
Barges with dump cars.....	3
Pumps (centrifugal, 12 inch).....	2
Pumps (Nye, 5 inch).....	2
Locomotives.....	2
Cars.....	20

*Idle.*

Cable way.....	1
Locomotives.....	2
Steam pumps.....	3

*Section 1*—Fifty thousand and six hundred cubic yards were excavated on this section, which is equal to but about 40 per cent of the monthly rating.

Steam Shovel No. 172 worked 12 shifts, excavating 5 200 cubic yards, an average of 433 cubic yards per day. No. 177 worked 28 shifts, 17,640 cubic yards, an average of 630 cubic yards per day. No. 179 worked 29 shifts, 12,030 cubic yards, an average of 415 cubic yards per day; and No. 181 worked 28 shifts, 8,730 cubic yards, an average of 336 cubic yards per day. The remaining 7,000 cubic yards were taken out with teams. About 34,000 cubic yards of this material was placed in the trestle levee.

The contractors were delayed somewhat by wet weather and the breaking of one of their steam shovels, but are improving their plant and better results should be expected.

*Plant in Operation.*

Steam shovels.....	4
Locomotives.....	5
Large dump cars.....	85
Steam pumps.....	3
Wheel scrapers.....	24

*Idle—None.*

*Section 2*—A force of 275 men, 28 teams, 117 cars and 2 steam shovels removed 39,529 cubic yards on this section, which is equal to 106 per cent. of the monthly rating. Although no solid rock has yet been excavated, two channelling machines and two

steam drills were at work during the greater part of the month, and two cable ways are ready for operation.

*Plant in Operation.*

Steam shovels.....	2
Steam hoists and inclines.....	3
Channelers.....	2
Steam drills.....	2
Large dump cars.....	35
Small dump cars.....	82
Steam pumps.....	3

*Section 3*—19,100 cubic yards of glacial drift and 37,090 cubic yards of solid rock were excavated on this section which is equal to 138 per cent of the monthly rating.

Of the glacial drift 7,600 cubic yards were removed by steam shovel in twenty-one shifts, an average of 362 cubic yards per day, and 11,500 cubic yards were handled with a cable way in sixty-one shifts, an average of 188 cubic yards per shift.

The solid rock was removed by three cable ways working 126 shifts, averaging 294 cubic yards per shift.

*Plant in Operation.*

Steam shovels.....	1
Cable ways.....	4
Power drills.....	8
Channelers.....	8
Air compressors.....	1
Steam hoists and inclines.....	2
Steam pumps.....	2
Dump cars.....	36

*Section 4*—On this section there was employed an average force of 190 men, twenty-eight teams, sixty-three cars and four steam shovels, producing an output of 59,500 cubic yards, equal to 149 per cent of the monthly requirement. The section is well equipped and in good working order.

*Plant in Operation.*

Steam shovels.....	4
Steam hoists and inclines.....	3
Large dump cars.....	40
Small dump cars.....	23
Steam pumps.....	2

*Idle.*

Steam pumps.....	2
Boilers.....	2
Hoisting engine.....	1
Wheel scrapers.....	43
Dump cars.....	200

*Section 5*—The average force employed on this section during the month was 209 men, 17 teams, 115 cars, 5 locomotives and 3 steam shovels, whose total output was 42,200 cubic yards of glacial drift, and 900 cubic yards of solid rock, equal to 84 per cent of the monthly requirement.



*Plant in Operation.*

Steam shovels.....	3
Locomotives.....	5
Steam hoist.....	1
Dump cars.....	115
Channelers.....	2
Steam drill.....	1
Derricks.....	3
Steam pumps.....	4

*Idle.*

Large derricks.....	2
Dump cars.....	43
Steam drills.....	4
Steam pumps.....	4

*Section 6*—There was engaged on this section an average force of 207 men, 10 teams, 2 cable ways, 3 steam shovels, 3 steam hoists, 30 cars and 2 derricks, whose total yardage amounted to 47,900 cubic yards, which is 49 per cent of the monthly requirement under the new rating. Some rock has been quarried for the retaining walls, and a little has been removed where the ledges came in the way of the forces at work on the glacial drift.

Two channellers were put in operation on the first of the month, and four more have been started since—one each on the 21st, 24th, 25th and 26th.

The erection of two more cable ways was commenced on the 6th, and work commenced on the foundation for an air compressor.

The revetment of the muck banks on the west half of the section is a tedious undertaking and will for some time confine the excavation operations to the east half of the section which is being opened up in good shape, preparatory to rock excavation and the erection of retaining walls.

*Plant in Operation.*

Cable ways.....	2
Steam shovels.....	3
Steam hoists.....	3
Channelers.....	6
Drill.....	1
Derricks.....	2
Pumps.....	4

*Idle.*

Cable ways (uncompleted).....	2
Steam hoist.....	1
Cars.....	29
Derricks.....	2
Power drills.....	10
Steam pumps.....	3

*Sections 7, 8, 9, 10, 11, 12 and 13*—These are what may be termed full solid rock sections, on which are employed such well known and efficient appliances that a state-

ment of gross results will doubtless suffice as well as one in detail. The output for the month on these sections was as follows:

Section 7—25,400 cubic yards glacial drift.

Section 7—37,700 cubic yards solid rock, equal to 136 per cent.

Section 8—42,400 cubic yards solid rock, equal to 149 per cent.

Section 9—51,200 cubic yards solid rock, equal to 205 per cent.

Section 10—55,200 cubic yards solid rock, equal to 197 per cent.

Section 11—30,600 cubic yards solid rock, equal to 125 per cent.

Section 12—26,300 cubic yards solid rock, equal to 109 per cent.

Section 13—38,200 cubic yards solid rock, equal to 154 per cent.

*Section 14*—The output for the month on this section was 36,200 cubic yards of glacial drift and 13,500 cubic yards of solid rock, which amounts to 107 per cent of the old rating. A new derrick (No. 2) has been put in operation, which so far shows an improvement over the first one. Two more (Nos. 3 and 4) of the same pattern as the last one, are under construction. No. 3 is expected to be ready by the latter part of October, and No. 4 by December 1st. Two others have also been ordered for the west end of the section, and some of the material is already on the ground.

*Plant in Operation.*

Steam shovels.....	2
Locomotives.....	3
Large dump cars.....	60
Steam pumps.....	5
Air compressors.....	1
Channelers.....	6
Power drills.....	10
Double derricks.....	1

*Idle.*

Boilers.....	3
Steam hoists.....	2
Power drills.....	6
Small dump cars.....	32

*Section 15*—The contractors arrived on the ground on the 10th, and began the erection of camp buildings. On the 18th they put in a railroad service track connecting with the Santa Fe R. R. and extending to the west end of the section.

Work was commenced stripping off the glacial drift with a force of teams and scrapers on the 19th ult., which should be completed during the current month.



Seven camp buildings have been erected, and 1 boiler, 1 steam pump and 1 hoisting engine have been delivered on the work. There was so little work done, however, that no estimate was made of it.

The total value of the work done during the month was \$555,030.87, more than

\$50,000 in excess of the average monthly requirement.

Very respectfully,

(Signed)

U. W. WESTON,

*Supt. of Construction."*

STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE MONTH OF SEPTEMBER, 1894 (MAIN CHANNEL).

SECTIONS.	Amount Done During September.	Average Monthly Requirement.	Deficiency for September.	Excess Over Monthly Requirement.	Per Cent. of Monthly Requirement.
O.....	\$12,810 00	\$ 13,373 30	\$ 563 30	.....	96
N.....	5,106 00	10,614 81	5,508 81	.....	43
M.....	12,043 50	6,255 02	.....	\$ 5,788 48	193
L.....	5,870 60	8,648 36	2,777 76	.....	68
K.....	14,600 00	11,490 55	.....	3,109 45	127
I.....	16,075 00	11,361 94	.....	4,713 06	141
H.....	10,848 90	11,966 83	1,117 93	.....	91
G.....	8,664 32	15,791 38	7,127 06	.....	55
F.....	2,143 44	7,971 64	5,828 20	.....	27
E.....	.....	.....	.....	.....	.....
D.....	24,827 98	15,788 43	.....	9,039 55	157
C.....	12,528 56	13,568 10	1,039 54	.....	92
B.....	.....	13,443 95	13,443 95	.....	00
A.....	47,424 96	24,224 63	.....	23,200 33	197
1.....	21,707 40	53,735 43	32,028 03	.....	40
2.....	19,764 50	18,541 43	.....	1,223 07	106
3.....	38,885 16	28,121 22	.....	10,763 94	138
4.....	29,155 00	19,623 70	.....	9,531 30	149
5.....	13,743 50	16,317 19	2,573 69	.....	84
6.....	12,933 00	26,619 64	13,686 64	.....	49
7.....	34,573 50	25,462 74	.....	9,110 76	136
8.....	31,694 00	21,295 08	.....	10,398 92	149
9.....	39,372 80	19,232 36	.....	20,140 44	205
10.....	44,160 00	22,472 29	.....	21,687 71	197
11.....	24,250 50	19,493 98	.....	4,756 52	124
12.....	20,842 75	19,200 06	.....	1,642 69	109
13.....	28,554 50	13,588 65	.....	9,965 85	154
14.....	22,087 00	20,653 03	.....	1,433 97	107
Totals.....	\$554,666 87	\$493,855 74	\$85,694 91	\$146,506 04	112.31

## FORCE REPORT—DAILY AVERAGE—SEPTEMBER, 1894.

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Chan- nelers.	Air Com- pressors.	Conveyors.	Locomo- tives.	Cars.	Dredges.	Graders.	Steam Tow Boats.	Scows.
O.....	43	2	...	...	...	...	...	...	...	...	1	4.8	...	5.	14
N.....	26	25	...	...	...	...	...	...	...	...	...	...	...	...	...
M.....	107	14	3.3	2.4	...	...	...	...	3.5	...	...	...	...	...	...
L.....	40	3	1.0	1.	...	...	...	...	1.0	...	...	...	...	...	...
K.....	65	24	1.9	...	...	...	...	...	1.9	...	...	...	...	...	...
I.....	145	16	3.7	2.9	...	1.	...	...	3.7	...	...	...	...	...	...
H.....	30	19	...	.6	...	...	...	...	...	...	...	...	...	...	...
G.....	92	34	2.0	2.6	...	...	...	...	1.0	...	31	...	...	...	...
F.....	44	2	1.	2.	...	...	...	...	...	2	9	...	...	...	...
E.....	4	1	...	3.	...	...	...	...	...	...	...	...	...	...	...
D.....	136	72	1.7	3.	...	...	...	...	...	4	34	...	1.	...	...
C.....	109	34	2.0	3.4	...	...	...	...	...	4	16	1.0	.4	...	1
B.....	68	...	.5	4.	...	...	...	...	...	1	10	.8	...	...	...
A.....	164	1	.2	1.2	...	...	...	...	...	...	4	3.6	...	...	...
1.....	212	4	4.6	5.	...	...	...	...	6.4	...	85	...	...	...	...
2.....	275	28	1.9	6.5	1.6	2.5	1.9	...	.5	...	117	...	...	...	...
3.....	529	16	.8	5.9	10.9	1.7	7.1	1.2	6.4	...	36	...	...	...	...
4.....	190	24	3.4	6.5	...	2.6	...	...	...	...	63	...	...	...	...
5.....	209	17	2.4	7.7	.6	1.4	1.8	...	1.8	5.1	115	...	...	...	...
6.....	207	10	2.5	6.8	.4	2.6	2.6	...	2.2	...	30	.3	...	...	...
7.....	433	11	...	18.0	11.6	1.5	7.8	2.2	8.6	...	34	2.0	...	...	...
8.....	337	7	...	11.8	15.8	.8	9.	1.4	6.4	...	10	...	...	...	...
9.....	460	14	...	8.9	14.5	3.2	7.8	...	1.2	...	160	...	...	...	...
10.....	389	3	...	7.1	18.6	2.6	8.9	1.2	2.7	...	36	...	...	...	...
11.....	131	6	...	6.6	10.8	...	5.	1.	2.	...	...	...	...	...	...
12.....	139	4	...	4.8	7.4	...	4.1	1.	2.7	...	...	...	...	...	...
13.....	251	10	...	7.1	13.2	...	5.4	1.	3.5	...	...	...	...	...	...
14.....	198	9	3.	7.1	3.7	...	5.5	1.9	2.1	5.	89	...	...	...	...
Totals. ....	5,033	410	35.9	135.9	109.0	19.0	66.9	10.9	51.2	27.5	880	12.5	1.4	5.	15

TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVER

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION.	
		Glacial Drift	Solid Rock.	Glacial Drift	Solid Rock.
		Cubic Yards.	Cubic Yards.	Cubic Yards.	Cubic Yards.
O	McMahon & Montgomery Co. et al.	380,400	.....	.....	.....
N	Hayes Bros. et al.	42,700	.....	.....	.....
M	The Heidenreich Co.	197,200	.....	.....	.....
L	The Heidenreich Co.	317,800	.....	.....	.....
K	Christie & Lowe	295,300	.....	.....	.....
I	Christie & Lowe	453,900	.....	.....	.....
H	Gahan & Byrne	106,480	.....	.....	.....
G	Gahan & Byrne	398,996	.....	.....	.....
F	Ricker, Lee & Co.	481,496	.....	168,234	.....
E	Angus & Gindele	469,163	.....	95,718	.....
D	E. D. Smith & Co.	1,000,956	.....	.....	.....
C	Western Dredging & Imp. Co.	563,792	.....	162,537	.....
B	Heldmaier & Neu.	517,285	.....	208,626	.....
A	Heldmaier & Neu.	702,242	.....	120,786	.....
1	Griffiths & McDermott.	232,426	.....	5,876	.....
2	McArthur Bros.	449,770	.....	29,516	.....
3	Gilman & Co.	301,210	85,102	.....	.....
4	McArthur Bros.	509,500	.....	.....	.....
5	The Qualey Construction Company	491,500	3,200	.....	.....
6	Mason, Hoge & Co.	467,500	.....	112,700	.....
7	Mason, Hoge & Co.	152,200	275,700	96,700	41,000
8	Mason, Hoge, King & Co.	35,800	458,900	55,400	96,500
9	Halvorson, Richards & Co.	63,700	392,200	37,700	16,000
10	E. D. Smith & Co.	26,400	705,800	27,400	56,500
11	Mason, Hoge & Co.	43,492	553,800	5,756	11,483
12	Mason, Hoge & Co.	27,400	505,000	.....	.....
13	Mason, Hoge & Co.	32,822	770,700	.....	.....
14	Smith & Eastman	252,700	209,000	.....	.....
Total.....		9,014,130	3,959,402	1,116,949	221,483

Main Channel, glacial drift.....

Main Channel, solid rock.....

River Diversion, glacial drift.....

River Diversion, solid rock.....

Total amount required to be done October 1st, 1894.....

Total amount done October 1st, 1894.....

Total amount short as per contracts.....

Total value of work done under contracts October 1st, 1894.....

Reserved.....

{ 12½ per cent.....

{ 10 per cent.....

Total value of vouchers paid, including those of October 1st, 1894....

Total value of vouchers paid for collateral work, including those of October 1, 1894.....

Total disbursement construction account.....

NOTE.—\*Overhaul to Levee—Section 1 not included.

†Overhaul to Levee—Section 1 included.



## SION) AND CONDITION OF WORK ON CONTRACTS OCT. 1ST, 1894.

Total value of work done to Oct. 1st, 1894, on each section.	Total value of work required to be done to Oct. 1st, 1894.	Amounts behind as per contracts.	Amounts ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary June 1st, 1894, to time of completion.	Progress made during month of September, 1894.
\$ 79,884 00	\$ 66,866 50	.....	\$13,017 50	\$13,373 30	\$13,673 53	\$12,810 00
9,821 00	53,074 05	\$ 43,253 05	.....	10,614 81	11,076 32	5,106 00
42,792 40	37,530 12	.....	5,262 28	6,255 02	6,550 80	12 043 50
62,606 60	51,890 16	.....	10,716 44	8,648 36	8,791 40	5 870 60
73,825 00	68 943 30	.....	4,881 70	11,490 55	12,259 29	14,600 00
113 475 00	68,171 64	.....	45,303 36	11,361 94	11,332 54	16,075 00
30,879 20	71,800 98	40,921 78	.....	11,966 83	13,007 42	10,848 90
111,718 88	94,748 28	.....	16,970 60	15,791 33	16,068 83	8,664 32
151,935 88	142,121 58	.....	9 814 30	9,110 44	8,229 08	2,143 44
155 342 28	155,342 28	.....	.....	.....	.....	.....
264,627 74	233 814 93	.....	30,812 81	15,788 43	16,182 92	24,827 98
170,687 32	222,310 65	51,623 33	.....	14,820 71	17,235 86	12,528 56
195,995 97	227,702 10	31,706 13	.....	15,180 14	17,648 80	.....
252,052 33	381,095 70	129,043 37	.....	25,406 38	31,590 06	47,424 96
*82,724 96	249,232 58	166,507 62	.....	53,735 43	53,735 43	21,707 40
226,620 98	374 860 00	148,239 02	.....	18,743 00	24,863 58	19,764 50
212,095 22	301,005 40	88 910 68	.....	28,121 22	33,566 96	38 885 16
238 964 54	412,097 70	173,133 16	.....	19,625 70	27,776 89	29,155 00
144,745 00	334,502 40	189,757 40	.....	16,317 19	24,123 73	13,743 50
155,449 00	216,909 55	61,460 55	.....	26,661 51	26,930 88	12,933 00
297,488 50	294,713 70	.....	2,774 80	25,550 84	26,144 27	34,573 50
438 873 50	516,428 66	77,555 16	.....	23,474 03	31,195 19	32 058 00
340 269 80	436 343 38	96,073 58	.....	19,833 79	27,377 55	39 372 80
623,290 00	522 035 26	.....	101,254 74	23,774 33	23,854 68	44,160 00
462,884 30	434,685 02	.....	28,199 28	19,758 41	20,333 49	24,250 50
408,501 00	422,401 32	13 900 32	.....	19,200 05	20,238 28	20,842 75
584,631 97	408,950 30	.....	175,681 67	18,588 65	14,292 26	28 554 50
232,566 00	454,366 66	221,800 66	.....	20,653 03	30,825 84	22,087 00
\$6,164,748 37	\$7,253,944 70	\$1,533,885 81	\$444,689 48	\$503,843 48	\$568,910 88	\$555,030 87

## Cubic Yards.

.....	9,014,130
.....	3,959,402
.....	1,116,949
.....	221,483
.....	\$7,253,944 70
.....	6,164,748 37
.....	\$1,089 196 33
.....	\$6,164,748 37
.....	\$749,974 68
.....	136,202 79
.....	886,177 47
.....	\$5,278,570 90
.....	†546,477 00
.....	\$5,825 047 90

"CHICAGO, Oct. 1, 1894.

*Mr. Isham Randolph, Chief Engineer:*

DEAR SIR—The work of Division 2 for the month of September was as follows:

The field work of the Joliet Survey has been continued, an additional area being covered lying east and adjacent to the work previously finished. The eastern boundary of the survey finished at the present time is a line half way between Joliet and Ottawa streets as far north as Jefferson street.

The field platting and reduction of notes has been continued.

The party running levels along section lines in Worth and Bremen has this month run  $67\frac{1}{2}$  miles, or a total to date of 100 miles. Some work has been done on a map covering part of a valley between Rubey street, Joliet, to E. J. & E. Railway.

Some work has been done on the reduction of the precise level notes taken in Chicago.

Some further work was done on masonry plans for bridges over Main Channel.

Considerable work was done on plats and profiles of Illinois river.

The testing of cement and sand to be used in retaining walls was continued.

The work of taking record photographs was continued, as was also the maintenance of record and water gauges.

Expenses for October will approximate to those of September.

Very respectfully,

(Signed) THOS. T. JOHNSTON,

*First Assistant Chief Engineer."*

"CHICAGO, Oct. 17, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of September, 1894.

Work on the map of Desplaines and Upper Illinois Rivers and the District map occupied most of the time of the Division during the month. The original and tracing of the Illinois River map from Joliet to Henry was nearly finished.

Much of the topography was platted on the District map, additional notes having been received from the field party during each week.

Work was continued on the contour map of the territory northwest of Summit near the Calumet Terminal Railroad, and on the one of the lower Illinois River Valley. The platting of the topography through Joliet on each side of the Illinois and Michigan Canal was continued.

Tracings were made of the Illinois River profile, the cross-sections of the American and foreign canals, and a map of the territory between the Calumet Terminal Railroad and the east line of Sec. 5, T. 38 N., R. 13 E.

Prepared plats and descriptions of tracts which are required of the crossing of the C., S. F. & C. Ry. at Corwith and Lemont, and near the Range line east of Summit.

Platted a profile showing the elevations of rock on each side of the Main Channel on Contract Sections 7, 8, 10 and 11, and a map of the proposed railroad lines between Chicago and Joliet.

The official plans of Section E were finished. The progress profiles were continued.

The expense for October will be the same as for the past month.

Yours respectfully,

(Signed) EDGAR WILLIAMS,

*Second Assistant Chief Engineer."*

#### CONTRACT FOR BRIDGE MASONRY STONE ON SECTION 8.

The Clerk presented a report from the Chief Engineer, requesting that contract for the saving of bridge masonry stone on Section 8, authorized at the meeting held May 29, 1894, (page 1972 of the Proceedings) be ordered executed on behalf of the District, as set forth in the report; and the report was read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, and the President and Clerk authorized and directed to execute, on behalf of the District, the contract described therein, as already authorized by the Board.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the President and Clerk authorized and directed to execute, on behalf of the District, the contract described

therein, as already authorized by the Board.

The following is

THE REPORT:

"CHICAGO, Oct. 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On May 29th last you authorized the Chief Engineer to make arrangements with the contractors on Section 8 for saving dimension stone under specifications and conditions exactly similar to those under which stone was to be saved on Section No. 7 (see page 1972 of Proceedings). I made the arrangements contemplated in your order and had a contract prepared covering the work. Quite an amount of stone has been quarried under this arrangement, but the contract was never executed, and hence I have approved no vouchers in payment therefor. The contract has now been executed by the Contractors, but lacks our own official signatures. Will you pass the necessary order for perfecting the contract by the proper officers of this District?

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

REPORT ON INSPECTION OF CONTROLLING WORKS.

The Clerk presented a report from the Chief Engineer, detailing the results of a trip made under authority given by the Board at the meeting held October 3, 1894, (page 2241 of the Proceedings) for the purpose of an examination of certain controlling works; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT:

"CHICAGO, Oct. 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Pursuant to your authorization of the 3rd inst, I left this city on the 7th inst, accompanied by T. T. Johnston, First Assistant Chief Engineer, for the purpose of visiting certain public works—some completed, others in process of construction—designed for the regu-

lation and control of large flowing streams. The object of this inspection being a comparison of these works with our own designs for works hereafter to be constructed for controlling the flowage through the channel which we are now building, with a view to the incorporation into these designs of any valuable features presented by the works visited.

We visited the Davis Island Dam across the Ohio and saw the earliest application of the Chenoine Wicket construction made in this country. In this dam there is also a 52 foot bear trap which does not seem to have been a success. The lock gates were of novel design and there operation has been very successful.

We next visited the Kanawah River and saw further admirable examples of the Chenoine Wicket Dam with the later American improvements in details of construction.

We stopped off a few hours in Cincinnati to see the model of a novel design for a movable dam invented by Col. Stickney. As it is not his desire that this should be made public property at this time, I refrain from any description of it.

We next visited Louisville where the lock construction is on a majestic scale and is very instructive. The extreme oscillation of the river there has reached 72 feet. There we saw very fine models of several forms of folding dams, all of the Bear Trap type.

Returning to Chicago on the 14th we stopped over to attend the pressing duties here, until the evening of the 16th, when we left for St. Paul. Owing to the poor train connections we had to lay over there one day. The greater portion of this day we spent in Minneapolis examining the dams and water power about St. Anthony's Falls. Never before have I realized the possibilities of water power development at the discharge end of our channel as I did when I looked upon the great city of Minneapolis sitting beside the Falls of St. Anthony—the creation of these Falls. The flow over the Falls at ordinary low stages is naturally 7,000 feet per second; this is increased by the supply from the Government reservoirs to about 9,500 feet per second. We shall discharge 10,000 feet per second.

From St. Paul we went up the St. Croix River by train and private conveyance to Nevers Dam. This structure is the work of private enterprise and it has created an impounding basin which backs the water up the stream for twenty miles or more. The dam consists of a



heavy earth embankment probably 1,500 feet long, twelve Tainter gates each of 24 feet opening, and three Lang Bear Traps of 24, 30 and 80 feet openings respectively. The Bear Traps are manouvered with great ease by one man. The height of the crest can be controlled to a nicety by the adjustment of the valves governing the admission and discharge of the water beneath the folding leaves which form the dam. I have already submitted for inspection a crude model of this type of dam to many of the individual members composing your honorable body. The dams at Nevers have been in service for five years and they have been subjected to tests which justify the assertion that this form of dam is eminently successful. I believe that an admirable adaptation of this form of dam can be made to our needs. We procured no data as to cost as, unfortunately, we failed to meet Mr. Lang, the inventor and builder.

From Nevers we went to Sault Ste Marie and examined the great lock now being constructed there by our Government at a cost of \$5,000,000. This splendid structure is 800 feet long and 100 feet wide, will have 21½ feet of water over the sill and can be emptied in six minutes, and filled in about the same length of time. One most interesting exhibit there was an emergency dam for use in closing the canal above the locks. It consists of a swing bridge carrying, folded beneath its floor, wickets which when the bridge is thrown across the channel can be let down against a sill in the bottom of the canal, thus forming an efficient dam.

We are greatly indebted to Capt. W. L. Marshall for letters to officers in charge of the various works, which insured us every courtesy.

We are under obligations to Captain Hoxie and Mr. Martin at Pittsburgh; Mr. A. M. Scott in charge of the Kanawah improvement; Col. Stickney at Cincinnati; Lieut. Chittenden at Louisville; Major W. A. Jones at St. Paul and Mr. L. L. Wheeler at the Soo. It was very gratifying to find our own work a subject of the greatest interest to the professional men with whom we came in contact.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
Chief Engineer."

#### REPORT ON SUBSCRIPTIONS TO DISTRICT TELEPHONE SYSTEM.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, concerning certain annual subscriptions by the con-

tractors and other parties for the use of the District telephone system, accompanied by two forms of contract with reference to the same, recommending that the President and Clerk be authorized and directed to execute the said contracts, on behalf of the District, as provided in the report, and further recommending the charging of certain tolls, as provided in the report; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and with accompanying contracts placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said contracts, on behalf of the District, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and with accompanying contracts placed on file, the recommendations made in the report concurred in, and the President and Clerk authorized and directed to execute the said contracts, on behalf of the District, as provided in the report.

The following is

#### THE REPORT:

"CHICAGO, Oct. 24, 1894.

#### *To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the telephone system of the Sanitary District now existing between the Rialto Building and Lockport, we report that contractors representing nine sections of the Main Drainage Channel have executed contracts of subscription to such system and paid their first annual payment of one hundred (\$100.00) dollars per working section, a copy of which contract is herewith transmitted; also, that several of the merchants of Chicago have asked to become subscribers to said system, and have agreed to execute contracts of subscription, a copy of which is also herewith transmitted the annual payment being \$50.00.

We recommend that the President and Clerk be directed to accept on behalf of the District the contracts already signed by contractors, also to accept contracts of subscription from such merchants as may wish to execute the same, and that

said President and Clerk be authorized and directed to execute such contracts on the part of the District.

We further recommend that any person, corporation, firm or merchant not a subscriber as aforesaid be charged the sum of fifty (50c) cents for each five (5) minutes or fraction thereof he may wish to use said system, and that the Clerk turn over to the Treasurer all moneys received from such source.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*  
 W. H. RUSSELL,  
 THOMAS KELLY,  
 WM. BOLDENWECK,  
 JOHN J. ALTPETER,  
 L. E. COOLEY,

*Joint Committee on Finance and Engineering."*

(Enclosing two forms of contract.)

REPORT ON PROPOSITIONS FOR PURCHASE  
 OF STONE EXCAVATED FROM MAIN  
 CHANNEL, AND FOR ADVERTISING  
 FOR SALE OF MUCK.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to and accompanied by propositions from Joseph W. Latimer, Howard H. Gross and the Union Stone Company, for the purchase of stone excavated from the Main Channel, presented and referred to that Committee at the meetings held April 29, 1893, and July 18 and September 26, 1894 (pages 1200, 2059 and 2236 of the Proceedings), and recommending that said propositions be rejected, and further recommending that no action be taken in the matter of advertising for the sale of muck on Section N; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Nays—Messrs. Altpeter and Gilmore—two (2).

Upon which result the President declared the motion carried, the report adopted, ordered printed, and with enclosures, placed on file, and the recom-

mendations made in the report concurred in.

The following is

THE REPORT:

"CHICAGO, Oct. 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the communications from Joseph W. Latimer, Howard H. Gross and the Union Stone Company, making proposition for the purchase of stone excavated from the Main Channel of this District, presented and referred to the Joint Committee on Finance and Engineering at the meetings held April 29, 1893, (Page 1200) July 18, 1894, (page 2059) and September 26, 1894, (page 2236) respectively, your Committee beg leave to report as follows:

The Committee doubts the propriety of disposing of any of the material excavated from the Channel by sale, or otherwise, at this time, and therefore return said communications for filing, with the recommendation that the propositions be rejected.

With reference to the matter of advertising for the sale of muck on Section N, referred at the meeting held October 10, 1894, (page 2256) the Committee recommends that no action be taken at this time.

Respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*  
 W. H. RUSSELL,  
 WM. BOLDENWECK,  
 THOMAS KELLY,  
 L. E. COOLEY,

*Joint Committee on Finance and Engineering."*

(Three (3) enclosures.)

REPORT ON REQUISITIONS NOS. 483, 511,  
 512 AND 513.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by Requisitions Nos. 483, 511, 512 and 513, presented and referred to that Committee at the meeting held October 17, 1894 (page 2259 of the Proceedings), recommending that the same be allowed; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck moved that the report be adopted,

ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying requisitions allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the accompanying requisitions allowed.

The following is

THE REPORT:

“CHICAGO, Oct. 24, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to Requisitions No. 483, for the Law Department, and Nos. 511, 512 and 513, for the Engineering Department, presented and referred to the Joint Committee on Engineering and Finance at the meeting held October

17, 1894, (page 2259 of the Proceedings) your Committee respectfully report that they have considered said requisitions, and return same herewith, with the recommendation that they be allowed.

Respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

B. A. ECKHART,

THOMAS KELLY,

WM. BOLDENWECK,

JOHN J. ALTPETER,

W. H. RUSSELL,

*Joint Committee on Engineering and Finance.”*

(Accompanied by four (4) requisitions.)

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

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OCTOBER 31, 1894.

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OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and forty-fifth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, October 31, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8) members, were present.

MINUTES.

The minutes of the regular meeting held October 24, 1894, were approved

as printed, on motion of Mr. Kelly, seconded by Mr. Russell.

VOUCHERS.

The Clerk presented a report from the Chief Engineer, enclosing a voucher in full of contract for completed work of raising and strengthening the easterly guard bank of the Illinois and Michigan Canal at Basin No. 1 at Joliet; and the report was read.

In connection with the same, the Clerk presented a communication, from the Board of Canal Commissioners, addressed to President Wenter, accepting the said work, and requesting its acceptance by the District as soon as possible; and the communication was read.

Mr. Altpeter, seconded by Mr. Boldenweck, moved that the report and communication be ordered printed, and, with accompanying voucher, referred to the Joint Committee on Finance and Engineering.

The motion prevailed unanimously, and the report and communication were ordered printed, and, with accompanying voucher, so referred.

The following is

THE REPORT:

"CHICAGO, Oct. 31, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith a voucher covering the completed contract of the Commissioners of the Illinois and Michigan Canal for raising and strengthening the levee on the east bank of said Illinois and Michigan Canal and the upper basin at Joliet between Lock No. 4 and Dam No. 1.

This work has been completed and the water face of the levee rip-rapped with stone throughout its entire length of 7670 feet.

I have made a personal examination of the work and concur fully with Mr. Harrison, the Assistant Engineer in charge, in his approval of it.

The formal notice of the completion of this work, designated by the Canal Commissioners for your Honorable Body, came into my possession before reaching you and I have handed it to our President.

Very respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Accompanied by voucher.)

The following is

THE COMMUNICATION:

"LOCKPORT, Ill., Oct. 20, 1894.

*Hon. Frank Wenter, President Sanitary District of Chicago, Chicago Ills.:*

DEAR SIR—The work under our contract with your Board, of June 25, 1894, for raising the top of the left bank of the Desplaines River and Illinois and Michigan Canal from Lock No. 4 in the Canal to Hyde's Flour Mill above Dam No. 1, Joliet, has been completed in a durable and workmanlike manner. Kindly have your Engineer accept the same as soon as possible to enable us to close the matter without delay.

Yours truly,

(Signed)  
BOARD OF CANAL COMMISSIONERS,  
By WILLIAM A. S. GRAHAM,  
*Secretary."*

The Clerk then presented the following vouchers:

PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (Oct., 1894).....	\$ 500 00
Eng. Dept., Div. No. 1, (October, 1894).....	8,945 56
Eng. Dept., Div. No. 1, Tow-path roll (October, 1894).....	278 50
Eng. Dept., Div. No. 2, (October, 1894).....	2,607 20
Eng. Dept., Div. No. 3, (October, 1894).....	2,112 66
Eng. Dept., Div. No. 4, (October, 1894).....	281 66
	<hr/>
	\$14,725 58
Clerical Dept., Clerk's roll, (October, 1894)...	891 67
Law Dept., Attorney's roll, (October, 1894)...	\$1,011 67
Law Dept., Joliet roll, (October, 1894).....	\$ 453 33
	<hr/>
	\$ 1,470 00
Treasury Dept., Treasurer's roll, (October, 1894).....	166 66
General Account, General roll, (Oct., 1894). \$	235 00
General Account, Trustees' roll, (October, 1894).....	2,333 33
	<hr/>
	\$ 2,568 33
Police Dept., Marshal's roll, (October, 1894).....	\$ 3,796 65
	<hr/>
Total.....	\$23,618 89

ENGINEERING DEPARTMENT.

Isham Randolph (traveling).....	\$ 266 55
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CLERICAL DEPARTMENT.

Ryan & Hart (printing)	\$ 5 00
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LAW DEPARTMENT.

Orrin N. Carter, legal services, (Oct., 1894). \$	350 00
Jos. Donnersberger, expert, right of way services, (Oct., 1894)	300 00
Geo. E. Dawson, (expense).....	50 59
	<hr/>
	\$ 700 59

LAW DEPARTMENT.

<i>Land Account—</i>	
Geo. E. Dawson (redemption taxes Livingston land).....	\$ 82 66

TREASURY DEPARTMENT.

Cameron, Amberg & Co. (stationery).....	\$ 19 90
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## GENERAL ACCOUNT.

Chicago Edison Co., (electric lighting)...	38 62
Geneva Optical Co., (albums).....	27 54
The Chicago Times (advertising Sec. E).	14 88
The Chicago Dispatch (advertising Sec. E).	17 00
	<hr/> \$ 98 04

Grand total..... \$24 791 63

Mr. Kelly, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending October 27, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, Oct. 31, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending October 27, 1894, as the same have been reported to me:

Engineering Department.....	144
Law Department.....	7
Clerical Department.....	4
Treasury Department.....	1
Police Department.....	47

Total employes..... 203

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk.”

ACTION ON MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

Mr. Cooley, Chairman presented a re-

port from the Joint Committee on Engineering and Finance, with reference to and accompanied by the report from the Engineering Department (enclosing classified statement) for the month of September, 1894, presented and referred to that Committee at the meeting held October 24, 1894, (page 2265 of the Proceedings); and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.

The following is

## THE REPORT:

“CHICAGO, Ill., Oct. 31, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the report of the Chief Engineer and Superintendent of Construction upon the progress of work for the month of September, 1894, referred at the meeting held October 24, 1894, (page 2265 of the Proceedings) your Committee report as follows:

We have considered all questions raised upon the several sections between Bridgeport and Lockport. Greater progress should hereafter be made on Section O, the land having been obtained for an entrance slip at the west end from the Ogden-Wentworth Ditch. Section N still awaits some adjustments in regard to railway crossings. Much greater progress on Section F is not to be expected from the present contractors. The Contractors for Section E have not yet made the start called for, especially in the construction of the protection levee, which is urgent. Section 1 will require a more extensive plant than that now provided. Section 5 is still badly in arrears, and will call for renewed consideration at an early day, unless a substantial improvement in progress is made. Section 14 is further and more inexcusably behind than any other section, and the contractors have repeated their promises of better results.

Otherwise, the work on the Main Chan-



nel calls for no special comment, further than to commend the rate of progress upon a large number of the sections.

Your Committee recommends that the Chief Engineer use every means in his power to push forward the work on the delinquent sections, and that he recommend to this Board such actions as should be taken in any case to insure the completion of any section on time.

Considerable desultory work remains on the River Diversion and guard bank in order to complete the same and insure the continued safety of the work. So far as the Committee is aware, the Chief Engineer has all the necessary authority, and it only remains for him to see that the work required is actually done.

The report of the Chief Engineer, with enclosures, is herewith returned for filing.

Very respectfully submitted,

(Signed)

L. E. COOLEY,  
*Chairman.*

B. A. ECKHART,  
WM. BOLDENWECK,  
W. H. RUSSELL,  
JOHN J. ALTPETER,  
THOMAS KELLY,

*Joint Committee on Engineering and Finance."*

(One (1) enclosure.)

#### PAYMENT OF MATURING BONDS AND INTEREST ON BONDS.

Mr. Eckhart, Chairman of the Committee on Finance, presented an order, authorizing and directing the Clerk to draw a warrant on the Treasurer, payable to the order of the Treasurer, in the sum of one hundred and forty-seven thousand, five hundred (\$147,500) dollars, to be used in the payment of maturing bonds and interest on bonds of the District, as provided in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the order adopted.

The following is

#### THE ORDER:

"*Ordered*, That the Clerk of this Dis-

trict be and he is hereby authorized and directed to draw a warrant upon the Treasurer, payable to the order of Melville E. Stone, Treasurer, in the sum of one hundred and forty-seven thousand, five hundred (\$147,500) dollars, and deliver the same to said Treasurer; forty-seven thousand, five hundred (\$47,500) dollars of said sum to be used by him in payment of the semi-annual interest on the first issue of bonds of the District, due November 1st, 1894, and one hundred thousand (\$100,000) dollars of said sum to be used by him in payment of the principal of such of said first issue of bonds as fall due on said November 1st, 1894."

#### CLOSING OF OFFICES ON "ELECTION DAY."

Mr. Russell presented an order, directing that the offices of the District be closed on Tuesday, November 6, 1894,—"Election Day," and providing further that the Clerk be directed to notify contractors of provisions of the election law, as provided in the order; and the order was read.

Mr. Russell, seconded by Mr. Boldenweck, moved the adoption of the order.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE ORDER:

"*Ordered*, That the offices of the Sanitary District be and they are hereby ordered closed on Tuesday, November 6, 1894, the same being "Election Day,"—a legal holiday.

*Ordered*, further, That the Clerk of said District be and he is hereby directed to call the attention of the contractors to the provisions of the election law providing for the giving to employes of an opportunity to vote at elections."

#### RESOLUTION FOR COLLECTION OF DISTRICT HOSPITAL FUND.

Mr. Altpeter presented a resolution, requesting that the contractors deposit with the Clerk of the District the amounts retained from the wages of employes, for the purpose of creating a uniform hospital system; and the resolution was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the resolution be ordered printed and referred to the Joint Committee on Health and Public Order, Labor and Judiciary.

The motion prevailed unanimously, and the resolution was ordered printed and so referred.

The following is

THE RESOLUTION:

“WHEREAS, It is desirable that a uniform system should be established of caring for employees of contractors upon the work of this District who become sick or are disabled in the course of their employment, and it seems that such uniformity could best be secured through a central point of distribution for the funds collected from employees for hospital care; therefore, be it

*Resolved*, That the several contractors be requested to deposit with the Clerk of this District monthly the respective amounts retained by them from the wages of their employes for the purpose of caring for them when sick or disabled,

and that the amount so deposited be held by him as a fund from which, under his direction, the cost of caring for sick and disabled workmen shall be paid.”

PRESENTATION OF BIDS FOR HIGHWAY BRIDGES AND MASONRY AT ROMEO, LEMONT AND WILLOW SPRINGS.

The President then announced that in conformity with the advertisement of August 29, 1894, published for sixty days as provided by the Sanitary District Act, inviting proposals for the erection of highway bridges and masonry abutments for the same, at Romeo, Lemont and Willow Springs, the Board would now proceed to open bids received in response to said advertisement.

The Clerk then presented bids as shown by the following

SCHEDULE OF BIDS:

No. of Bids.	Name of Bidder and Location.	Work bid on.	Checks deposited.
1	Lewis M. Loss, Chicago, Ill.....	Masonry.	\$1,000
2	*The Youngstown Bridge Co., Youngs town, Ohio.....	} Bridges and masonry } (with plans.)	} 9,000
3	Wm. Peace, Marseilles, Ill.....		
4	Detroit Bridge and Iron Works, De troit, Mich.....	Masonry.	1,000
5	Wisconsin Bridge and Iron Co., North Milwaukee, Wis.....	Bridges (with plans.)	3,000
6	Campbell & Dennis, Joliet, Ill.....	Bridges (with plans.)	3,000
7	Chicago Bridge and Iron Co., Chicago	Masonry.	1,000
8	McArthur Bros. Co., Chicago, Ill.....	Bridges (with plans.)	3,000
9	The Pittsburgh Bridge Co., Pitts burgh, Pa.....	Masonry.	1,000
10	E. D. Smith & Co., Romeoville, Ill....	Bridges (with plans.)	3,000
11	Samuel W. Norton, Lemont, Ill.....	Masonry.	1,000
12	Hill-O'Meara Construction Co., Chi cago, Ill. and St. Louis, Mo.....	Masonry.	1,000
13	Toledo Bridge Co., Toledo, Ohio.....	Bridges (with plans.)	3,000
14	J. D. Moran Mnf'g and Construction Co., St. Paul, Minn.....	Masonry.	1,000
15	Anderson & Wenberg, Chicago and Joliet, Ill.....	Masonry.	1,000
16	Mason, Hoge & Co., Frankfort, Ky...	Masonry.	1,000
17	American Bridge Works, Chicago, Ill.	Bridges (with plans.)	3,000
18	C. L. Strobel, Chicago, Ill.....	Bridges (with plans.)	3,000
19	C. L. Strobel, Chicago, Ill.....	Masonry.	1,000
20	F. S. Brown & Co., Chicago, Ill.....	Masonry.	1,000
21	Thos. Nicholson, Chicago, Ill.....	Masonry.	1,000
22	Milwaukee Bridge and Iron Works, Milwaukee, Wis.....	Bridges (with plans.)	3,000
23	Shailer & Schniglaui, Chicago, Ill....	Bridges (with plans.)	3,000
24	Griffiths & McDermott Construction Co., Chicago, Ill.....	} Bridges and masonry } (with plans.)	} 4,000

\*NOTE—The Youngstown Bridge Company presented two propositions, with plans, checks, etc., additional to those required by the specifications.

## BIDS FOR BUILDING SWING BRIDGES, OCTOBER , 1894.

BID NO.	NAME OF BIDDER.	TOTAL COST OF BRIDGES.		
		BRIDGE NO. 1	BRIDGE NO. 2	BRIDGE NO. 3
*2	The Youngstown Bridge Co.... }	\$21 974.00	\$21,974.00	\$21 974.00
		20,900.00	20,900.00	20,900.00
4	Detroit Bridge and Iron Works...	11,900.00	11,900.00	11,900.00
5	Wisconsin Bridge and Iron Co...	16,392.00	16,392.00	16 392.00
7	The Chicago Bridge and Iron Co.	13 992.58	13,893.80	13,893 80
9	The Pittsburgh Bridge Co.....	14,201.00	14,201.00	14,201.00
13	Toledo Bridge Co.....	20,670.00	20,670 00	20,670 00
17	American Bridge Works.....	15,009.60	15,009.60	15 009 60
18	C. L. Strobel.....	19,115.00	19,115.00	19,115.00
22	Milwaukee Bridge & Iron Works	14,328.00	14,328.00	14,328.00
23	Shailer & Schniglau.....	15,822.00	15,648 50	15,648 50
24	Griffiths & McDermott Con- struction Co..... }	20,490.00	20,490 00	20,490.00
		17,099.00	17,099.00	17,099.00
		15,328.00	15,328.00	15,328.00

## BIDS FOR BUILDING BRIDGE MASONRY, OCTOBER 31, 1894.

BID NO.	NAME OF BIDDER.	PRICE PER CUBIC YARD.	
		ABUTMENTS.	PIVOT PIER.
1	Lewis M. Loss.....	\$ 9.35	\$10.40
3	Wm. Peace.....	5.50	5.50
6	Campbell & Dennis.....	9.87½	10.62½
8	McArthur Brothers Co.....	9.40	10.20
10	E. D. Smith & Co.....	5.50	6.60
11	Samuel W. Norton.....	7.60	8 95
12	Hill-O'Meara Construction Co.....	8.45	8.45
13	J.D. Moran Manufacturing and Construction Co.	6.15	6.75
15	Anderson & Wenberg.....	9.95	9.75
16	Mason, Hoge & Co.....	7.99	7.99
19	C. L. Strobel.....	7.80	7.80
20	F. S. Brown & Co.....	7.25	7.25
21	Thos. Nicholson.....	6.98	9 24
24	Griffiths & McDermott Construction Co.....	10.50	10.50

\*Additional propositions of this company include Bridge and Masonry complete.

BIDS TO BE TABULATED AND REFERRED  
TO JOINT COMMITTEE ON ENGI-  
NEERING AND FINANCE.

Mr. Cooley, seconded by Mr. Eckhart, moved that the bids just received be compiled, summarized and tabulated by the Chief Engineer, incorporated in Proceedings and the subject matter of the bids be referred to the Joint Committee on Engineering and Finance in conjunction with the Chief Engineer and Attorney.

The motion prevailed unanimously, and it was so ordered.

## ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

Clerk.







# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

NOVEMBER 7, 1894.

#### OFFICIAL RECORD.

(Published by authority of the Board of Trustees of the Sanitary District of Chicago.)

#### REGULAR MEETING.

The two hundred and forty-sixth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, November 7, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—six (6) members, were present.

#### MINUTES.

The minutes of the regular meeting held October 31, 1894, were approved

as printed, on motion of Mr. Eckhart, seconded by Mr. Kelly.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### Construction Account—

Griffiths & McDermott	
(Sec. 1, Nov. 1, 1894).	\$16,427 28
McArthur Bros. (Sec. 2, Nov. 1, 1894).....	8,574 56
Gilman & Co. (Sec. 3, Nov. 1, 1894).....	14,192 71
McArthur Bros. (Sec. 4, Nov. 1, 1894).....	15,177 75
The Qualey Construction Co. (Sec. 5, Nov. 1, 1894).....	6,561 81
Mason, Hoge & Co. (Sec. 6, Nov. 1, 1894).	8,236 81
Mason, Hoge & Co. (Sec. 7, Nov. 1, 1894).	15,778 00
Mason, Hoge, King & Co. (Sec. 8, Nov. 1,	



1894) .....	\$ 19,562 16
Halvorson, Richards & Co. (Sec. 9, Nov. 1, 1894).....	28,219 11
E. D. Smith & Co. (Sec. 10, Nov. 1, 1894)....	24,500 00
Mason, Hoge & Co. (Sec. 11, Nov. 1, 1894).....	10,128 44
Mason, Hoge & Co. (Sec. 12, Nov. 1, 1894).....	17,877 39
Mason, Hoge & Co., (Sec. 13, Nov. 1, 1894).....	15,435 87
Smith & Eastman (Sec. 14, Nov. 1, 1894).....	4,296 25
Wright, Meysenburg, Sinclair & Carry (Sec. 15, Nov. 1, 1894).....	1,529 50
Heldmaier & Neu (Sec. A, Nov. 1, 1894).....	6,654 20
Heldmaier & Neu (Sec. B, Nov. 1, 1894).....	1,281 42
Western Dredging & Improvement Co. (Sec. C, Nov. 1, 1894).....	12,462 11
E. D. Smith & Co. (Sec. D, Nov. 1, 1894).....	3,320 49
Ricker, Lee & Co. (Sec. F, Nov. 1, 1894).....	3,237 72
Gahan & Byrne (Sec. G, Nov. 1, 1894).....	7,304 18
Gahan & Byrne, (Sec. H, Nov. 1, 1894).....	3,254 60
Christie & Lowe (Sec. I, Nov. 1, 1894).....	12,958 75
Christie & Lowe, (Sec. K, Nov. 1, 1894).....	5,358 12
The Heidenreich Co. (Sec. L, Nov. 1, 1894).....	2,949 34
The Heidenreich Co. (Sec. M, Nov. 1, 1894).....	7,234 23
Hayes Bros., et al., (Sec. N, Nov. 1, 1894).....	941 85
McMahon & Montgomery Co., et al., (Sec. O, Nov. 1, 1894).....	8,393 70
Mason, Hoge & Co. (Sec. 6, extra, special work retaining embankment, Nov. 1, 1894).....	650 00
Mason, Hoge & Co., (Sec. 7, extra work, dimension stone, rip rap work, earth core and embankment, Nov. 1, 1894).....	1,634 00
Heldmaier & Neu (Sec. A, extra work, completing levee, 692 710 and below 710, Nov. 1, 1894).....	795 60
Lindon W. Bates (Sec. A, extra work, removal of River Diversion muck, Nov. 1, 1894).....	3,259 41
	<hr/> \$288,297 36

## ENGINEERING DEPARTMENT.

Chicago Towel Supply Co. (toweling).....	\$ 5 40
C. S. Austin (ice).....	9 00

John McCaffery (rent, Brighton Park, Oct., 1894).....	\$ 25 00
John T. Allison (rent, Summit, Oct., 1894).....	20 00
J. M. Abbitt (rent, Willow Springs, Oct., 1894).....	20 00
H. S. Norton (rent, Lemont, Oct., 1894).....	18 00
O. W. Moon (rent, Lockport, Oct., 1894).....	20 00
Isham Randolph (postage stamps).....	40 00
	<hr/> \$ 157 40

## CLERICAL DEPARTMENT.

Warner's Towel Supply (toweling).....	\$ 1 50
C. S. Austin (ice).....	3 00
	<hr/> \$ 4 50

## LAW DEPARTMENT.

Warner's Towel Supply (toweling).....	\$ 1 50
C. S. Austin (ice).....	3 00
	<hr/> \$ 4 50

Grand total..... \$283,463 76

Mr. Kelly, seconded by Mr. Russell, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending November 3, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, NOV. 7, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending Novem-

ber 3, 1894, as the same have been reported to me:

Engineering Department.....	142
Law Department.....	7
Clerical Department.....	4
Treasury Department.....	1
Police Department.....	47

Total employees..... 201

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
*Clerk.*"

#### MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of October, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT :

"Balance on hand at date of last report.....	\$3,076,470.92
Received from County Treasurer, tax account (1893).....	\$ 50,000.00
Received from Thos. F. Judge, Clerk, Law Department (settlement in Swift, Piper et al. condemnation cases)...	275.00
Received from County Treasurer, tax account (1893).....	50,000.00
Received from County Treasurer, tax account (1893).....	100,000.00
Received from Ft. Dearborn National Bank, interest for October...	1,027.71
Received from Metropolitan National Bank, interest for October...	970.83
Received from National Bank of Illinois, interest for October.....	1,087.41
Received from Chicago National Bank, interest for October.....	990.07
Received from American Trust and Savings Bank, interest for October.....	35.66
Received from Globe National Bank, interest for October.....	847.90
	<u>\$205,234.58</u>
Total cash received for month.....	\$3,281,705.50

Total cash disbursed during month as per annexed schedules, viz:

Clerical Department....	\$ 941.84
Treasury Department..	166.67
Engineering Departm't.	16,278.23
Engineering—Construction Department.....	591,363.66
Law Department.....	5,441.67
Law Department—Land Account.....	4,280.00
General Account.....	5,754.24
Police Department.....	3,890.75
	<u>\$628,117.06</u>

Balance this date, in banks as per schedule endorsed hereon ..... \$2,653,588.44

(Signed) MELVILLE E. STONE,  
*Treasurer.*

CHICAGO, Nov. 3, 1894."

#### SCHEDULE :

Fort Dearborn National Bank.....	\$501,122.08
National Bank of Illinois.....	501,962.61
Chicago National Bank.....	500,638.08
Metropolitan National Bank.....	503,859.95
American Trust and Savings Bank.	21,003.79
Globe National Bank.....	625,001.93
Total.....	<u>\$2,653,588.44</u>

#### APPOINTMENT OF PRINCIPAL ASSISTANT ATTORNEY.

The Clerk presented a report from the Attorney, nominating Charles C. Pickett for the position of Principal Assistant Attorney, and asking that the nomination be confirmed; and the report was read.

Mr. Kelly, seconded by Mr. Cooley, moved that the report be adopted, ordered printed and placed on file, and the nomination of Charles C. Pickett, as Principal Assistant Attorney, as provided therein, confirmed.

On roll-call the vote stood: Yeas—Messrs. Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—six (6). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the nomination of Charles C. Pickett, as Principal Assistant Attorney, as provided therein, confirmed.

The following is

#### THE REPORT:

"CHICAGO, Nov. 7, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—Subject to your confir-

mation, I hereby nominate Mr. Charles C. Pickett for Principal Assistant Attorney, as provided in the rules heretofore adopted by this Board.

Respectfully submitted,

(Signed)

GEO. E. DAWSON,

*Attorney."*

ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Kelly, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

NOVEMBER 14, 1894.

**OFFICIAL RECORD.**

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

**REGULAR MEETING.**

The two hundred and forty-seventh regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, November 14, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Prendergast and Wenter — six (6), and subsequently Messrs. Russell and Gilmore, making a total of eight (8) members, were present.

**MINUTES.**

The minutes of the regular meeting

held November 7, 1894, were approved as printed, on motion of Mr. Boldenweck, seconded by Mr. Eckhart.

**VOUCHERS.**

The Clerk presented the following vouchers:

**ENGINEERING DEPARTMENT.**

Geo. E. Marshall & Co. (stationery).....	\$ 3 00
R. R. Donnelly & Sons Co. (charts).....	12 00
W. A. Olmsted, (mount- ing maps).....	3 75
H. Schultz & Co. (paper boxes).....	10 00
F. Mayer & Co. (blue prints).....	77 67
Keuffel & Esser Co. (drafting supplies)..	33 80
Keuffel & Esser Co. (drafting supplies)..	2 24
Seelig & Kandler, (re- pairing tapes).....	7 95

Oehring & Kraft, (iron pans).....	\$ 6 50	
Fairbanks, Morse & Co. (cement moulds)....	84 00	
Chicago Edison Co., (changes and repairs).....	34 30	
Orne Electric Construction Co. (buzzer repairs).....	3 50	
Geneva Optical Co., (photographic supplies).....	17 49	
Henry Gebhardt (cement testing bench, etc.).....	30 20	
T. Ryan (coal).....	13 00	
J. M. Abbitt (coal)....	41 12	
H. Patterson (typewriting).....	2 86	
J. H. Spengler (expense).....	8 28	
U. W. Weston (traveling).....	10 00	
D. C. Dunlap (traveling).....	69 19	
Chas. L. Harrison. (traveling).....	8 84	
Alex. E. Kastl, (traveling).....	8 51	
E. R. Shnable (traveling).....	7 48	
Hiram A. Miller, (traveling).....	24 57	
W. T. Keating (traveling).....	13 07	
W. T. Keating (traveling).....	19 35	
J. H. Spengler (traveling).....	8 85	
J. H. Spengler (traveling).....	3 90	
N. E. Lugoff (traveling).....	4 91	
Wm. Kramer (traveling).....	3 88	
		\$ 574 15

## LAW DEPARTMENT.

*Land Account—*

The Will County Abstract Co. (additional abstract work).....	\$ 50 00
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## GENERAL ACCOUNT.

<i>The Chicago Times</i> (advertising bridges and masonry).....	\$ 540 00
<i>The Engineering News</i> Publishing Co. (advertising bridges and masonry).....	129 60
<i>The Engineering Record</i> (advertising bridges and masonry).....	108 00
<i>The Railroad Gazette</i> (advertising bridges and masonry).....	24 50
B. Edwards & Co., publishers <i>American Contractor</i> , (advertising bridges and masonry).....	20 00

John F. Higgins (printing proceedings Oct., 1894).....	\$ 128 17	\$ 950 27
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## POLICE DEPARTMENT.

The Fuller-Warren Co. (stoves).....	\$ 91 06	
John Naghten & Co. (insurance on stations).....	91 20	
Daniel E. Tracy (horse shoeing).....	13 60	
Edward Williams (expense).....	179 70	
		\$ 375 56
Grand total.....		\$1,949 98

Mr. Boldenweck, seconded by Mr. Altpeter, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Prendergast, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 931, Police Department, (kerosene).....	\$30 00
No. 1061, Clerical Department, (letter heads).....	15 00
Total.....	\$45 00

Mr. Boldenweck, seconded by Mr. Eckhart, moved that Requisitions No. 931, for the Police Department, and No. 1061, for the Clerical Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Prendergast, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 931, for the Police Department, and No. 1061, for the Clerical Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending November 10, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Nov. 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending November 10, 1894, as the same have been reported to me:

Engineering Department.....	140
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	7
Police Department.....	47

Total employes..... 199

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of October, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Nov. 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to herewith report that the total amount expended on account of and charged to the Clerical Department during the month of October, 1894, was \$1,838.51, divided as follows:

Salaries.....	\$1,783 33
Printing and stationery.....	28 43
General expenses.....	28 25

Total..... \$1 838 51

The above statement includes the salaries for both September and October, 1894. There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$50.

The total amount expended and charged to the General Account during

the month of October, 1894, was \$8,170.61, divided as follows:

Salaries.....	\$5,136 66
Printing and binding.....	179 09
Advertising.....	267 28
Rent.....	1,875 00
Telephone service.....	586 46
General expenses.....	126 12

Total..... \$8,170 61

The above statement includes the salaries for both September and October, 1894. There are outstanding liabilities against the General Account to the amount of about \$850, for advertising, and \$750 for telephone service, and the expenses for the present month will be about \$2,000.

During the month of October, 1894, there were warrants authorized and drawn against the various accounts for \$708,538.64, as follows:

Engineering Department.....	\$ 30,528 56
Clerical Department.....	1,888 51
Law Department.....	6,119 51
Treasury Department.....	353 23
General Account.....	8,170 61
Engineering Department (Construction Account).....	504,928 98
Law Department (Land Account).....	1,495 46
Bond Interest and Premium Account.....	147,500 00
Police Department.....	7,603 78
Total.....	<u>\$708,538 64</u>

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

PAYMENT OF SUBSCRIPTIONS TO DISTRICT TELEPHONE SYSTEM.

The Clerk presented a report, accompanied by ten (10) completed contracts and receipt from Treasurer Stone for \$1,100, being in full of moneys received by him from parties for one year's use of the District telephone system, as set forth in the report, in conformity with the recommendations of the Joint Committee on Finance and Engineering concurred in at the meeting held October 24, 1894, (page 2277 of the Proceedings); and the report was read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the report, with accompanying receipt, be ordered printed, and, with accompanying contracts, placed on file.

The motion prevailed unanimously, and it was so ordered.



The following is

THE REPORT, WITH ACCOMPANYING  
RECEIPT:

"CHICAGO, Nov. 14, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I have to report to your Honorable Body that six (6) contractors have signed contracts for the use of the District telephone system, paying one hundred (\$100) dollars per annum for each working section, a total of nine hundred (\$900) dollars, in accordance with the provisions of the report of the Joint Committee on Finance and Engineering, adopted by your Honorable Board at the meeting held October 24, 1894, (page 2277 of the Proceedings); and, further, that four (4) firms have subscribed, paying fifty (\$50) dollars per annum each, for the use of said system, as provided in the same report.

In conformity with the directions contained in said report, I have deposited with the Treasurer the sum of eleven hundred (\$1,100) dollars, to be credited to the Sanitary District of Chicago and the General Account (telephone service) thereof, the receipt for which sum is hereto attached and made a part of this report.

I also transmit for filing the ten (10) contracts mentioned above, duly executed under date of August 14, 1894, the date at which the service to each party began.

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
*Clerk."*

Enclosing receipt and ten (10) contracts.

"CHICAGO, Nov. 12, 1894.

*Received of Thos. F. Judge, Clerk of the  
Sanitary District of Chicago, the sum of  
eleven hundred (\$1,100) dollars, in full of  
money received for the use of District  
telephone line by private parties in ac-  
cordanace with the report of the Joint  
Committee on Finance and Engineering,  
as per the following list:*

Gahan & Byrne.....	\$200 00
E. D. Smith & Co.....	200 00
Western Dredging and Imp't. Co.	100 00
Griffiths & McDermott.....	100 00
McArthur Bros.....	200 00
Gilman & Co.....	100 00
	<hr/> \$ 900 00
Sullivan Machinery Co.....	\$ 50 00
Jones & Laughlins (Limited)....	50 00
Ingersoll-Sergeant Drill Co.....	50 00

Crerar, Adams & Co.....	\$ 50 00
	<hr/> \$ 200 00
Total.....	<hr/> \$1,100 00

The same to be credited to the Sanitary District of Chicago and the General Account (telephone service) thereof.

(Signed) MELVILLE E. STONE,  
*Treasurer of Sanitary Dist. of Chicago.*  
By W. G. STANFORD,  
*Assistant Treasurer."*  
(\$1,100.)

MONTHLY REPORT FROM LAW DEPART-  
MENT.

The Clerk presented a report from the Law Department for the month of October, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Nov. 14, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith the monthly report for October, 1894. The total amount paid out by this Department during the month is as follows:

*Salaries.*

Attorneys.....	\$2,000 00
Office force.....	665 00
	<hr/> \$2,665 00

*General Expenses.*

Court costs.....	\$ 499 65
Right of way.....	895 74
Expense account.....	64 89
Legal services.....	1,950 00
Printing and stationery	39 98
Sundries.....	4 25
	<hr/> \$3,454 51

*Land Account.*

Right of way (for which deeds have passed— Will County).....	\$ 800 00
Abstracts (Will County)	612 80
Redemption taxes.....	82 66
	<hr/> \$1,495 46
Total.....	<hr/> \$7,614 97

During the month considerable progress has been made in preparation for the trial of the suits in Will County.

The test-pits directed to be sunk in order that evidence as to the character of the land sought to be taken might be in readiness have all been finished, and the results are satisfactory.

An additional block of land at the end of Section fifteen (15) has been acquired from Mr. McWeeney. Other land settlements are in progress.

The subject of railroad crossings and of bridges over the Main Channel has continued to receive close attention, and exhaustive briefs thereon have been prepared by my assistants.

Very respectfully submitted,

(Signed) GEO. E. DAWSON,  
*Attorney."*

#### RETURN OF PART OF LAW DEPARTMENT EMERGENCY FUND.

The Clerk presented a report from the Attorney, accompanied by check (\$1,515) being one-half of the of the Emergency Fund in the hands of the Attorney, together with sundry other money in his hands as set forth in the report, and recommending that the same be returned to the Treasury; and the report was read.

Mr. Eckhart, seconded by Mr. Russell, moved that the report be ordered printed and placed on file, and the Clerk directed to deposit the enclosed check (\$1,515) with the Treasurer to the credit of the District and the Law Department account thereof.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, and the Clerk directed to deposit the enclosed check (\$1,515) with the Treasurer, to the credit of the District and the Law Department account thereof.

The following is

#### THE REPORT:

"CHICAGO, Nov. 14, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The emergency fund in the hands of my predecessor at the time of my appointment as Attorney of the Board, was the sum of three thousand (\$3,000) dollars. To this had been added by him the sum of \$10, which had been refused by an expert witness in the suit of the Enterprise Stone Co, et al, vs. the

District, and five (\$5) dollars returned by The Railway and Corporation Law Journal, which ceased publication after half the time for which subscription had been paid had expired, making the total transferred to me on account of emergency fund three thousand and fifteen (\$3,015) dollars

As our purchases of land are almost completed, there seems no further necessity of keeping so large an amount in this fund. I therefore transmit herewith check payable to the order of Melville E. Stone, Treasurer, for one thousand five hundred and fifteen (\$1,515) dollars, making the amount of the emergency fund still retained by me the sum of fifteen hundred (\$1,500) dollars.

Respectfully submitted,

(Signed) GEO. E. DAWSON,  
*Attorney."*

(Enclosing check, \$1,515).

#### ADDITIONAL PAYMENT FOR "TEDENS" AND "THORMAHLEN" LANDS.

Mr. Eckhart, Chairman of the Joint Committee on Finance and Engineering, presented a majority report from that Committee, authorizing and directing the Clerk to pay, on the voucher of the Attorney, a certain sum additional to that already paid, in full of right of way lands in DuPage County owned by John H. Tedens and John Thormahlen, as provided in the majority report; and the majority report was read.

Mr. Eckhart, Chairman, also presented a dissenting minority report from the same Committee, with reference to the same matter.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the majority report be adopted, ordered printed, and placed on file, the recommendations made therein concurred in, and the Clerk authorized and directed to pay said John H. Tedens and John Thormahlen, on the voucher of the Attorney, a certain sum, additional to that already paid, in full of right of way lands in DuPage County, owned by said parties, as provided in the report.

Mr. Eckhart, seconded by Mr. Cooley, moved that the minority report be substituted for the majority report.

On roll-call on the motion to substitute the vote stood: Yeas—Mr. Eckhart—one (1). Nays—Messrs. Altpeter, Boldenweck, Cooley, Prendergast, Russell and Wenter—six (6). Excused and not voting—Mr. Gilmore—one (1).



Upon which result the President declared the motion to substitute lost.

On roll-call on the original motion of Mr. Boldenweck, the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Gilmore, Prendergast, Russell and Wenter—seven (7). Nays—Mr. Eckhart—one (1).

(By unanimous consent, the members signing the majority and minority reports were given permission to present supplemental reports at the next meeting, and have them incorporated in the Proceedings).

Upon which result the President declared the motion carried, the majority report adopted, with minority report ordered printed and placed on file, the recommendations made in the majority report concurred in, and the Clerk authorized and directed to pay said John H. Tedens and John Thormahlen, on the voucher of the Attorney, a certain sum additional to that already paid, in full of right of way lands in DuPage County, owned by said parties, as provided in the majority report.

The following is

#### THE MAJORITY REPORT:

“CHICAGO, Nov. 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Finance and Engineering have reached an agreement with John H. Tedens and John Thormahlen for the purchase from them for the corporate purposes of this District of the lands hereinafter described for the sum of seven thousand (\$7,000) dollars.

Said lands were included in the condemnation proceedings brought by the Sanitary District against John H. Tedens, et al., in the Circuit Court of DuPage County, Illinois, and a verdict was entered therein for an aggregate amount of five thousand, two hundred and twenty-three and forty-three one-hundredths (\$5,223.43) dollars, upon which verdict an order of judgment was entered August 27, 1892, directing that the amount of said verdict be deposited in the bank of Gary and Wheaton at Wheaton, Illinois, for the use of the owners and persons interested in said lands.

An appeal was taken from said order of judgment to the Supreme Court of the State and said judgment was reversed and remanded. Proper stipulations have been drawn and filed providing for the

reinstatement and redocketing of said cause for the acceptance of the amount awarded in said former suit and for the withdrawal of same from said bank. The remaining sum to be paid by the District is one thousand, seven hundred and seventy-six and fifty-seven one-hundredths (\$1,776.57) dollars.

The evidence submitted on the trial of said suit was very conflicting, and had the jury awarded a verdict two or three times as large, the District could have had no hope of getting it reversed on account of excessive valuation, as the Supreme Court would have said that there was evidence to sustain the verdict. Since the trial the condition of the land has changed materially, so that in view of the possibility of a much higher verdict on a new trial, and of the fact that a new trial would involve an expenditure almost, if not fully, equal to the additional amount here recommended, your Committee deem it prudent to thus close the matter on terms, which from a careful view of the whole situation, seem to them very favorable for the District.

Your Committee recommend that the Clerk of this District be authorized and directed to pay, on the voucher of the Attorney, to said John H. Tedens and John Thormahlen said sum of one thousand, seven hundred and seventy-six and fifty-seven one-hundredths (\$1,776.57) dollars, being the balance due under said agreement in full payment for the following described lands to-wit:

Part of the south fraction of the northeast fractional quarter ( $\frac{1}{4}$ ) of Section fifteen (15) in Township thirty-seven (37) North, Range eleven (11) East of the Third Principal Meridian, bounded and described as follows:

Beginning at the southeast corner of said northeast fractional quarter ( $\frac{1}{4}$ ) and running thence north on the east line of said northeast fractional quarter ( $\frac{1}{4}$ ) to the southerly line of the embankment known as the “Guard Bank”; thence southwesterly along said southerly line of said embankment to its intersection with the south line of said northeast fractional quarter ( $\frac{1}{4}$ ); thence east on said south line to the place of beginning.

That part of the northeast fractional quarter ( $\frac{1}{4}$ ) of Section fifteen (15) in Township thirty-seven (37) North, Range eleven (11) East of the Third Principal Meridian, bounded and described as follows:

Beginning at the point of intersection of the east line of said northeast frac-



tional quarter ( $\frac{1}{4}$ ) with the southerly line of the embankment known as the "Guard Bank" running thence north on said east line to the southeasterly margin of the Desplaines River; thence in a northwesterly direction and at right angles with the general course of said river there, to the center thread of the current of said river; thence southwesterly down said center thread to its intersection with a line drawn northwesterly from the point of contact of the west line of said northeast fractional quarter ( $\frac{1}{4}$ ) with said southeasterly margin, and at right angles with the general course of the river there; thence southeasterly along said line to said southeasterly margin; thence south on said west line to the south line of said northeast fractional quarter ( $\frac{1}{4}$ ); thence east along said south line to its intersection with said southerly line of said embankment; thence north-easterly along said southerly line to the point of beginning.

That part of the northwest quarter (N. W.  $\frac{1}{4}$ ) of Section fifteen (15) in Township thirty-seven (37) North, Range eleven (11) East of the Third Principal Meridian, bounded and described as follows:

Beginning at the southeast corner of said Northwest quarter (N. W.  $\frac{1}{4}$ ) and running thence west on the south line of said northwest quarter (N. W.  $\frac{1}{4}$ ) to the southeasterly margin of the Desplaines River; thence northwesterly at right angles to the general course of said river there, to the center thread of the current of said river; thence northeasterly along the said center thread to its intersection with a line drawn northwesterly from the point of contact of the east line of said northwest quarter (N. W.  $\frac{1}{4}$ ) with said southeasterly margin and at right angles to the general course of said river there; thence along said line to said southeasterly margin; thence south on said east line to the point of beginning.

That part of the southeast quarter (S. E.  $\frac{1}{4}$ ) of Section sixteen (16) in Township thirty-seven (37) North, Range eleven (11), East of the Third Principal Meridian, bounded and described as follows:

Beginning at the point of intersection of the east line of said southeast quarter ( $\frac{1}{4}$ ) with the boundary line between the Counties of Cook and DuPage, State of Illinois; thence westerly along said boundary line to the southeasterly margin of the Desplaines River; thence northerly at right angles to the general course of said river there, to the center thread of the current of said river; thence north-

easterly along said thread to its intersection with a line drawn northwesterly from the point of contact of said east line of said southeast quarter (S. E.  $\frac{1}{4}$ ) with the southeasterly margin of said river, and at right angles to the general course of said river there until it intersects said thread; thence southeasterly along said line to said southeasterly margin; thence south along said east line to the point of beginning.

All of said above described premises lying and being situate in the County of DuPage in the State of Illinois.

Said agreement provides for the giving to the District of a Warranty Deed for the tract first herein described and of a quit-claim deed or deeds for the remainder of said tracts.

Respectfully submitted,

(Signed) WM. BOLDENWECK,  
JOHN J. ALTPETER,  
W. H. RUSSELL,  
L. E. COOLEY,

*Joint Committee on Finance and Engineering."*

The following is

#### THE MINORITY REPORT:

"CHICAGO, Nov. 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GELTLEMEN—We dissent from the recommendation made by the majority of the Joint Committee on Finance and Engineering that the sum of \$1,776.57 shall be paid for the lands described in said report in addition to the amount fixed by the verdict of a jury as fair compensation for said lands.

As we understand it, the judgment entered in the lower court was reversed in the Supreme Court and remanded, not on account of too low a valuation of the land, but because the jury viewed other lands, because plans showing the nature of the improvement contemplated were not furnished, and because of some remarks of the presiding judge at the trial.

Under these circumstances we do not believe that the District is justified in increasing the amount to be paid for said lands over and above the sum already

fixed upon by a jury at a regular trial, with all the evidence before them.

Respectfully submitted,

(Signed) B. A. ECKHART,

*Chairman.*

THOMAS KELLY,

*Of Joint Committee on Finance and Engineering."*

#### COMPLETION OF LEVEE ON SECTIONS 11 AND 12.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, recommending that the Chief Engineer be instructed to notify the contractors on Sections 11 and 12 to forthwith complete the levee on said sections, under conditions as provided in the report; and the report was read.

Mr. Cooley, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Chief Engineer instructed as provided therein.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the Chief Engineer instructed as provided therein.

The following is

THE REPORT:

"CHICAGO, Nov. 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee has considered the matter of properly completing the levee and protecting the same on Sections 11 and 12, as brought to its attention by the Chief Engineer. It appears that Mason, Hoge & Co. are still protesting against their responsibility for completing this work. It appears further that that portion of the work through Goose Lake on Section 12 is in an unsatisfactory condition to withstand any unusual flood, and that the same should be completed forthwith.

This Committee fully expressed its views in regard to the merits of the controversy in its report of April 11, 1894, (page 1862 of the Proceedings) and the same was approved by the Board.

We now recommend that the Chief Engineer be instructed to notify the contractors for Sections 11 and 12 to forthwith complete the levee and make the same assafe and satisfactory as the Chief Engineer may direct, and in the event of their not proceeding so to do within five days after said notice, that the Chief Engineer be instructed to complete the same at their expense.

Respectfully submitted,

(Signed) L. E. COOLEY,

*Chairman.*

B. A. ECKHART,

JOHN J. ALTPETER,

WM. BOLDENWECK,

W. H. RUSSELL,

*Joint Committee on Engineering and Finance."*

#### REPORTS ON BIDS FOR HIGHWAY BRIDGES AND MASONRY AT ROMEO, LEMONT AND WILLOW SPRINGS.

Mr. Cooley, Chairman of the Joint Committee on Engineering and Finance, presented a majority report from that Committee, (accompanied by tables prepared by the Chief Engineer) with reference to the bids for bridges and masonry at Romeo, Lemont and Willow Springs, presented and referred to that Committee at the meeting held October 31, 1894, (page 2285 of the Proceedings) recommending that all the bids be rejected, the Clerk directed to return checks deposited with the same, and the Chief Engineer instructed to prepare and submit plans and specifications for fixed bridges, as provided in the report; and the report was read.

Mr. Cooley, Chairman, also presented a minority report from the same Committee, with reference to the same matter, dissenting from the recommendations of the majority report concerning fixed bridges; and the report was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the majority report be adopted, ordered printed, and, with accompanying tables placed on file, and the recommendations made in the majority report concurred in.

Mr. Cooley, seconded by Mr. Altpeter, moved that the minority report be substituted for the majority report.

After discussion, Mr. Gilmore, seconded by Mr. Cooley, moved that action on the whole subject matter of the reports be deferred until the next meeting.



On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley and Gilmore—three (3). Nays—Messrs. Boldenweck, Eckhart, Prendergast, Russell and Wenter—five (5).

Upon which result the President declared the motion lost.

On roll-call, on the motion to substitute, the vote stood: Yeas—Messrs. Altpeter and Cooley—two (2). Nays—Messrs. Boldenweck, Eckhart, Gilmore, Prendergast, Russell and Wenter—six (6).

Upon which result the President declared the motion to substitute lost.

On roll-call, on the original motion of Mr. Eckhart, the vote stood: Yeas—Messrs. Boldenweck, Eckhart, Prendergast, Russell and Wenter—five (5). Nays—Messrs. Altpeter, Cooley, and Gilmore—three (3).

(By unanimous consent, the members signing the majority and minority reports were given permission to present supplemental reports at the next meeting, and have them incorporated in the Proceedings).

Upon which result the President declared the motion carried, the majority report adopted, with minority report, ordered printed, and, with accompanying tables, placed on file, the recommendations made in the majority report concurred in, and the Clerk directed and the Chief Engineer instructed in accordance with the same.

The following is

#### THE MAJORITY REPORT:

“CHICAGO, Nov. 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The Joint Committee on Engineering and Finance has considered the bids for bridges and masonry, presented to your Honorable Body and referred to the Committee at the meeting held October 31, 1894, (page 2285 of the Proceedings) and report as follows:

We recommend that all bids for bridges and masonry be rejected, and that the Clerk be directed to return the checks deposited with said bids.

We further recommend that the Chief Engineer be instructed to prepare and submit to the Board alternative plans and specifications for fixed bridges of wood and metal.

Tabulations of the bids of October 31,

1894, prepared by the Chief Engineer and transmitted herewith.

Respectfully submitted,

(Signed) B. A. ECKHART,  
WM. BOLDENWECK,  
W. H. RUSSELL,  
THOMAS KELLY,

*Joint Committee on Engineering and Finance.”*

(Accompanied by tables)

The following is

#### THE MINORITY REPORT:

“CHICAGO, Nov. 14, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The rejection of the bids for draw bridges to the end that fixed bridges shall be substituted is a reversal of the policy explicitly set forth in the resolution adopted at the meeting held December 5, 1891. (page 279 of the Proceedings) at the time when this Board was reorganized and seeking to restore public confidence in this project. The fixed bridge is subversive of the broad spirit of the legislation under which the District is organized, and to that extent a breach of faith with the people of the Desplaines and Illinois valley. It is also in derogation of the issues decided by the election in the fall of 1891, and of the broad pledges then made.

Extended comment may be postponed in the confident belief that this Board will, after due reflection, reconsider any hasty and ill-advised action that may be taken; and especially as abundant opportunity will present itself at a later date to properly discuss the actual status of the entire work and its probable cost, the financial resources available, and any further legislation that may be needed. It is sufficient now to say that the status of certain contracts is unsettled, and that important works remain to be determined, so that a close estimate of ultimate cost is impossible. It is presumed that the needed information will be largely supplied in the next few weeks.

It will be found on a full consideration that the construction of fixed bridges with the intention of replacing the same with draw bridges at some unassigned date in the future will prove ultimately an extravagance rather than an economy, and it will certainly be detrimental to the development of the large property



interests of the District and any revenue that may be derived therefrom. Furthermore, it will most seriously handicap the efforts of all those who are laboring for the early consummation of a waterway between the Lakes and the Mississippi, with its large commercial possibilities for the good of this city. It will also discourage the future collateral works which should follow as the necessary incident when the Sanitary Channel has been developed on a navigable basis, as docks and water-power—sources of revenue which the law concedes to the District. Finally, it greatly increases the difficulties of the ultimate solution of the railway problem, and will be construed as an admission that this Board is unequal to the task.

The question of the sufficiency of funds is not germane to the problem. Any deficiency that may arise will far exceed any margin involved in different solutions of the bridge problem, and any such deficiency will not be cured by postponing the completion of the work to 1897, or a later date, as has been suggested. It is feasible to open the work in 1896 if the Board is so disposed. If the funds are to be inadequate, the Board should use its best endeavors to secure the further authority that will be needed. Should this fail, the issue may be safely left to those who prefer death to taxation.

In view of the rejection of these bids, the Board should refrain from further committing itself at this time. The bridges on this Channel can all be built in one year, and their construction may be wisely deferred until the last moment. The further consideration may therefore be postponed until some time in 1895, and thus avoid the appearance of an attempt to prejudge the question. Meantime, the remaining features of the work and the absolutely necessary expenditures will be fully developed.

It is therefore recommended that any action designed to determine further the nature of the bridge solution be deferred.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.

JOHN J. ALTPETER,

*Of Joint Committee on Engineering and Finance."*

# PROPOSITION FOR COMPLETION OF BOUNDARY COMMISSION NOTES.

The Clerk presented a communication from J. L. Bennett, addressed to President Wenter, making proposition for the furnishing and transcription of the stenographic notes taken before the original Boundary Commission of the Sanitary District of Chicago; and the communication was read.

Mr. Eckhart, seconded by Mr. Russell, moved that the communication be ordered printed and referred to the Joint Committee on Finance and Engineering.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

## THE COMMUNICATION:

"CHICAGO, Nov. 8, 1894.

*Hon. Frank Wenter, President, Board of Trustees, Sanitary District of Chicago.*

DEAR SIR—I am in receipt of a letter this morning from Mr. Judge, in which he suggests that I prepare a proposition covering the transcription of the notes taken by the firm of Bennett, Edwards & Pettit before the commission to fix the boundaries of the Sanitary District.

In accordance with this suggestion I hereby offer to transcribe the notes for \$250, in addition to the charge already made of \$157, or, for the whole service, \$407.

The above is on an estimate of 500 pages of matter, the usual price for such work being 50 cents per page. It is impossible to estimate accurately, and I think, if anything, it will run under this amount. In no event will it exceed it.

Yours very truly,

(Signed) J. L. BENNETT."

## ADJOURNMENT.

On motion of Mr. Eckhart, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

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NOVEMBER 21, 1894.

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#### OFFICIAL RECORD.

(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)

#### REGULAR MEETING.

The two hundred and forty-eighth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, November 21, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Kelly, Russell and Wenter—six (6), and subsequently Mr. Gilmore, making a total of seven (7) members, were present.

#### MINUTES.

The minutes of the regular meeting

held November 14, 1894, were approved as printed, on motion of Mr. Kelly, seconded by Mr. Russell.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### ENGINEERING DEPARTMENT.

##### Construction Account—

Griffiths & McDermott (Sec. 1, Nov. 16, 1894).	\$10,706 34
McArthur Bros. (Sec. 2, Nov. 16, 1894)....	12,615 75
Gilman & Co. (Sec. 3, Nov. 16, 1894).....	13,034 70
McArthur Bros. (Sec. 4, Nov. 16, 1894).....	9,453 98
The Qualey Construc- tion Co. (Sec. 5, Nov. 16, 1894) .....	6,830 25
Mason, Hoge & Co. (Sec. 6, Nov. 16, 1894)	7,418 25
Mason, Hoge & Co. (Sec. 7, Nov. 16, 1894)	8,675 19

Mason, Hoge, King & Co. (Sec. 8, Nov. 16, 1894) .....	\$ 17,136 44
Halvorson, Richards & Co. (Sec. 9, Nov. 16, 1894) .....	17,292 83
E. D. Smith & Co. (Sec. 10, Nov. 16, 1894) .....	13,160 00
Mason, Hoge & Co. (Sec. 11, Nov. 16, 1894) .....	8,390 59
Mason, Hoge & Co. (Sec. 12, Nov. 16, 1894) .....	13,105 97
Mason, Hoge & Co. (Sec. 13, Nov. 16, 1894) .....	9,156 88
Smith & Eastman (Sec. 14, Nov. 16, 1894) .....	7,434 87
Wright, Meysenburg, Sinclair & Carry (Sec. 15, Nov. 16, 1894) .....	199 50
Heldmaier & Neu (Sec. A, Nov. 16, 1894) .....	9,043 95
Heldmaier & Neu (Sec. B, Nov. 16, 1894) .....	1,594 69
Western Dredging & Improvement Co. (Sec. C, Nov. 16, 1894) .....	4,316 89
E. D. Smith & Co. (Sec. D, Nov. 16, 1894) .....	4,776 00
Angus & Gindele (Sec. E, Nov. 16, 1894) .....	1,266 30
Ricker, Lee & Co. (Sec. F, Nov. 16, 1894) .....	233 36
Gahan & Byrne (Sec. G, Nov. 16, 1894) .....	2,838 82
Christie & Lowe (Sec. I, Nov. 16, 1894) .....	8 894 38
Christie & Lowe. (Sec. K, Nov. 16, 1894) .....	3,600 63
The Heidenreich Co. (Sec. L, Nov. 16, 1894) .....	4,031 85
The Heidenreich Co. (Sec. M, Nov. 16, 1894) .....	5,050 68
Hayes Bros., et al., (Sec. N, Nov. 16, 1894) .....	905 62
McMahon & Montgomery Co., et al., (Sec. O, Nov. 16, 1894) .....	5,993 93
Mason, Hoge & Co. (Sec. 6, (extra-special work—retaining embankment, Nov. 16, 1894) .....	845 00
Heldmaier & Neu (Sec. A, extra work, completing levee 692 710 and below 710, Nov. 16, 1894) .....	708 30
Lindon W. Bates (Sec. A, extra work, removal of River Diversion muck, Nov. 16, 1894) .....	4,860 05
	<u>\$213,576 99</u>

## ENGINEERING DEPARTMENT.

Eugene Dietzgen Co. (drafting material) ..	\$109 69
Soper Lumber Co. (stakes) .....	75 00
Morrisson, Plummer & Co. (bottles) .....	1 06
John Larney (coal) ..	18 00
	<u>\$ 203 75</u>

## LAW DEPARTMENT.

Julius Scheibe (test pit, Allen land)....	\$184 70
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## POLICE DEPARTMENT.

Robert Law (coal for stations) .....	\$316 00
Ogden, Sheldon & Co. (rent, Hyman avenue station land) .....	50 00
	<u>\$ 336 00</u>
Grand total .....	<u>\$214,331 44</u>

Mr. Kelly, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisition:

No. 514, Engineering Department, (furniture) .....	\$14.24
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Mr. Boldenweck, seconded by Mr. Kelly, moved that Requisition No. 514, for the Engineering Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 514, for the Engineering Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending November 17, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, Nov. 21, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report here—



with the number of employes in each department for the week ending November 17, 1894, as the same have been reported to me:

Engineering Department.....	140
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	47

Total employes..... 200

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
*Clerk."*

#### MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of October, 1894.

The same was read, and, by unanimous consent, was ordered printed, and, with accompanying classified statement, placed on file.

The following is

#### THE REPORT:

"CHICAGO, Nov. 21, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the reports of Divisions 1, 2 and 3, showing the detailed operations of the Engineering Department for the month of October.

The expenses for the month of October were as follows:

Pay rolls.....	\$ 14,725.58
Material.....	1,176.83
Contractor's estimates.....	504,928.98

Total for October.....\$520,831.39

I estimate the expenses of this Department for the month of November will be \$450,000.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(Accompanied by classified statement).

"CHICAGO, Nov. 19, 1894.

*Isham Randolph, Esq. Chief Engineer:*

DEAR SIR—I herewith submit my report of the work of construction for the

month of October, accompanied with tabulated statements showing the amount of work done during the month, the daily average force employed and the condition of the work up to the 1st inst.

The weather was quite favorable considering the season of the year, and the value of the work done exceeded that of the previous month by a little over \$40,000.00. The average rate of progress on the entire channel was 109 3-10 per cent of the contract requirement. While this is 3 per cent less than the rate for the preceding month, the percentage for this month includes Section 15—recently let—upon which the work is just being opened, and but little progress has thus far been made thereon.

*Section O*—Most of the work was done on this section with steam dipper dredges between Robey street and Western Avenue boulevard, and the material excavated was taken away in dump scows. Four steam dredges were employed (one of which also worked nights), whose output for the month was 69,780 cubic yards for 125 shifts of ten hours each, an average of about 560 cubic yards per day. Eight thousand two hundred and twenty cubic yards were handled with teams and cars, making the total estimate 78,000 yards, equal to 122 per cent of the contract requirement, and placing the section \$16,380.00 in advance of its obligations on the 1st inst.

The dredge work done thus far has been confined to that part of the Main Channel between Robey street and the east line of Western Avenue boulevard—a distance of about 2,640 feet—for the reason that no right has yet been acquired to cross Western Avenue boulevard and the Pan Handle system of railway tracks adjacent thereto. But pending the acquisition of such rights, provision has been made for access to the west half of the section by the purchase of a right of way connecting the latter with the west fork of the river near the Bride-well, which the contractors are expected to utilize. They do not, however, seem to be making such progress in opening up this means of communication as is desirable, and, in view of the fact that of the 533,573 cubic yards of material embraced in the above mentioned 2,640 feet, 431,862 cubic yards have been excavated, and that there remains but about 97,000 cubic yards available for dredge work on that part of the

channel, it is important that special attention be given to gaining access to the west half of the section via the route above named.

*Section N*—The same obstacles mentioned in the previous section, with the addition of the Chicago, Madison & Northern Railway, prevents the use of dredges upon this section. Work was continued same as last month, with a small force of teams, the output being 17,200 cubic yards, which was removed with wagons and railroad cars.

*Sections M and L*—On Section M, three steam shovels, in connection with incline conveyors, were engaged until noon of the 22d, when one shovel and its conveyor passed into Section L. Up to the 10th, one steam shovel also worked nights; from the 10th to the 22d, two shovels, and since that time but one shovel was employed nights. On the 9th inst., a force of men, teams and small dump cars was started at the east end of the section, near the Santa Fe Railroad tracks, where a small part of the work is inaccessible for the operation of steam shovels and inclines.

A scraper force was also employed taking down and trimming the slopes in advance of the steam shovels, and, owing to the employment of such auxiliary forces, the amount done by each could not readily be estimated separately, so as to give the average daily output of each shovel accurately, but it is safe to say that they averaged fully 750 yards per day each.

The total quantity excavated was 68,400 cubic yards, an average of 2,630 yards per day for the 26 working days of the month, and 237 per cent of the required rate of progress.

On Section L one steam shovel and incline worked during the entire month and another from noon of the 22nd for the balance of the month. The output for the month was 27,900 cubic yards, an average for each steam shovel of 945 yards per day for the 29½ shifts of 10 hours each during which they were employed, which is 64 per cent of the monthly progress rating. But as these two sections are planted and operated practically as one it will be observed that, considered together, the rate of progress for October is \$5,435.72 in excess of the monthly rating. This is equal to 136 per cent on both sections. On the 1st

inst. both were in advance of the contract requirement—the excess on Section M being \$13,850.06 and that on Section L \$7,564.38—a total of \$21,414.44.

Although inclement weather during the ensuing winter may reduce the output the work now seems to be provided with sufficient plant and appliances to fulfill the requirements of the contract.

*Sections I and K*—All work on these two sections was done with steam shovels in connection with steel truss bridge conveyors. Like the two preceding sections they have been equipped jointly, and are operated together.

On Section K, but one steam shovel, in connection with a truss bridge conveyor, was employed. It was operated day and night, and excavated 32,300 cubic yards during 49 shifts of 10 hours each, which is equal to an average of 660 cubic yards per day, and amounts to 70 per cent. of the monthly rating.

On Section I two steam shovels with truss bridge conveyors worked during the entire month. Their last steam shovel plant was put in operation on the 5th and worked the balance of the month. These shovels also worked day and night, 127½ shifts of 10 hours each, their output being 79,500 cubic yards, an average of about 625 cubic yards per shift, and equal to 175 per cent. of the monthly rating. Considered together, however, the excess on both sections amounts to \$5,097.51, and the average percentage 122. These two sections are also ahead of the contract rating. Section K exceeds the contract requirement by \$1,466.15, and Section I by \$3,816.42, a total of \$55,282.57.

The same remarks made in reference to the sufficiency of the equipment on the two preceding sections will apply with equal force to these, and, notwithstanding the radical difference in the methods employed for disposing of the material, both seem to operate successfully.

*Sections H and G*—A team force averaging 19 per day was employed during the month on Section H. a part of which was used in excavating surface ditches.

On the 4th the Hoover & Mason Conveyor was started temporarily, for the purpose of carrying away the material excavated by manual labor from a pit which was dug down to grade, in which the conveyor was to be installed before it could be



operated as designed. This excavation was completed on the 15th, when they commenced to extend and lower the conveying apparatus down to grade. On the 20th, the work of actual excavation by means of plows for loading the conveyor was begun, and the balance of the month was consumed in endeavoring to perfect this method of operation. The output of the conveyor during the month was 7859 cubic yards, an average of 487 cubic yards per actual working day. This is the only appliance on the section at this time for excavating material. It is the first one of its kind ever constructed, and its capacity and utility are as yet undetermined. The total output for the month was 19,771 cubic yards, equal to 48 per cent. of the monthly requirement.

On Section G the steam shovel and Peter car work was continued with but little interruption, 3 days in moving and  $\frac{1}{2}$  day on account of rain. An average force of 24 teams and a wheelbarrow force were also employed. The output for the foregoing was 27,246 cubic yards, which could not be estimated in detail. Force averages are therefore omitted. The Bates belt conveyor excavated 17,884 cubic yards, an average of  $777\frac{1}{2}$  cubic yards per day for 23 days, it having lost four days on account of accident and rain. This gives a total of 45,130 cubic yards for the month, which amounts to 80 per cent. of the required rating.

*Section F*—Two steam shovels were employed on this section during the month, and from the 1st to the 11th an average force of eleven teams was engaged in cleaning up the slopes after the steam shovels. The work done by the shovels was entirely in boulder clay, in which the contractors were compelled to use dynamite and black or Judson powder to render it possible for the shovels to handle this material. An average of 14 men were employed in drilling and blasting in advance of the shovels. These men worked Sundays and five nights. The depth to which holes were drilled was from 16 to 18 feet. The two steam shovels removed 17,594 cubic yards, an average of 326 yards per shovel per day. The team force removed 4,056 cubic yards, making a total of 21,650 cubic yards, which is equal to 65 per cent. of the monthly rating, and leaves the sec-

tion \$5,845.73 in advance of the contract requirements on the 1st inst.

The contractors have, however, practically abandoned the work on account of difficult material.

*Section E*—On the 23rd of September last this section was relet to Angus & Gindele. According to the terms of the new contract the required rating of \$22,999.23 was to commence on the 1st of October and be maintained monthly thereafter, but owing to delays and disappointments in procuring the necessary plant, work was not commenced until the 23rd of October, when one steam shovel was started.

The current monthly estimates are measured on the 26th of each month, but there was not enough done on this section to warrant an estimate for the month of October. The contractors have been doing a great deal of preliminary work required by the condition in which they found the section, such as installing pumps for pumping out the pits, grading and laying tracks, etc. The latter is being laid so as to enable them to reinforce the levee. They have also provided machinery as follows:

2 steam shovels.

3 locomotives.

6 flat cars.

17 small dump cars.

3 steam pumps.

It may be well to here explain that under the original contract the required monthly rating was \$16,940.19, while under the new contract, in order to cover the deficiency incurred by the suspension of the work, the monthly rating is increased to \$22,999.23. In the preceding report and accompanying statements, these items were omitted for the reason that the section had passed into the hands of new contractors who had at that time done no work thereon.

*Section D*—There was a considerable falling off in the team force on this section during the month, as the excavation is getting too deep for the economical use of a large force of this kind. The steam shovels also fell short of their usual quantities, both having to be sent to the manufacturers for repairs. The section however, is about two months in advance of the contract requirements and with the present appliances should maintain its



standing. The output for the steam shovels was 28,984 cubic yards, an average of 743 yards per day. The team force moved 18,414 cubic yards, making the total estimate 47,398 yards, which is equal to 79 per cent of the monthly rating.

*Section C*—The team, car, and wheelbarrow forces were largely increased during October, and another steam shovel was added to the plant near the end of the month. The hydraulic dredge moved 6,523 cubic yards, an average of 311 yards per day. The steam shovels averaged 493 yards per day. The total output was 88,677 cubic yards—equal to 145 per cent of the monthly rating, and reducing the delinquency to \$46,779.95 on the 1st inst.

*Section B*—The cross levee on this section, mentioned in my last report, was completed during the month. No further work was done with hydraulic dredges, but about 6,000 cubic yards of muck were removed with men and wheelbarrows at places that were inaccessible for dredge work. The work of pumping out the deep pools was continued and the laying of tracks for steam shovels and transportation of material was commenced. This should insure better progress, the rate on which was but 12 per cent during the past month, leaving the section \$45,258.48 behind on the 1st inst.

*Section A*—Work was continued on this section with hydraulic dredges. Dredge No. 1 worked 25 shifts of eleven hours each, excavating 34,000 cubic yards, an average of 1,360 cubic yards per shift.

Dredge No. 2 worked 46 shifts of eleven hours, excavating 63,000 cubic yards, an average of 1,370 cubic yards per shift, making the total estimate 97,000 cubic yards, equal to 123 per cent, and leaving the section \$124,688.38 in arrears.

The trestle referred to in my last report is being strengthened and rebuilt in places, with better prospects of completing the levee than was therein predicted.

*Section 1*—This section shows an improvement of a little more than 32 per cent over the preceding month, the total output being 66,600 cubic yards, which is 53 per cent of the amount required per month, leaving a total deficiency of \$191,671.75 on the 1st inst. under the new rating.

Shovel No. 172 worked 3 shifts, moving 1,700 cubic yards, an average of 567 yards

per shift. Shovel No. 179 excavated 18,000 cubic yards in 35 shifts, or 514 yards per shift. Shovel No. 181 moved 22,200 cubic yards in 50 shifts, an average 444 yards per shift. Shovel No. 184 handled 19,000 cubic yards in 31 shifts, making an average of 613 yards per shift. Shovel No. 177 took out 4,200 cubic yards in 12 shifts, equal to 350 yards per shift. The balance, 1,500 cubic yards was moved with wheel scrapers.

The disabled steam shovel mentioned in my last report has been repaired and is again at work. Another shovel has also been added to the plant and the two incline conveyors of the Heidenreich pattern are under construction. These will commence operation some time during the current month, and it seems that nothing but inclement weather can prevent marked progress on this work.

*Section 2*—This section shows an improvement over the preceding month, the output being 37,068 cubic yards of glacial drift and 4,000 cubic yards of solid rock, which amounts to 117 per cent of the monthly rating and reduces the deficiency to \$145,248.02 on the 1st inst.

The two cable ways mentioned in my last report commenced operations during the month—one in glacial drift and the other in solid rock.

Osgood Shovel No. 1 moved 6,100 cubic yards in 18 days, an average of 340 yards per day. Osgood Shovel No. 2 handled 9,500 cubic yards in 24 days, or 395 yards per day. Shovel No. 183 excavated 14,500 cubic yards in 23 days, equal to 630 yards per day. Cable way No. 1 moved 5,600 cubic yards of glacial drift in 26 days, averaging 215 yards per day, and the balance, 1,568 yards, was moved with men and dump cars. Cable way No. 2 took out 4,000 cubic yards of rock in 20 days, an average of 200 yards per day.

*Section 3*—This section continues to gain, its monthly rating for October being 148 per cent, and the deficiency reduced to \$75 293.58. 23,800 cubic yards of glacial drift were excavated of which 7 600 yards were handled with a steam shovel in 24 days, an average of 316 cubic yards per day; 14 300 cubic yards were taken out with a cable way in 56 shifts, making an average of 255 yards per shift, and the balance, 1,900 cubic yards, was moved by manual labor; 37,382 cubic yards of rock

were removed by 3 cable ways in 140 shifts, making an average of 267 yards per shift.

*Section 4*—Although this section shows a slight decline for this month, its rating is 139 per cent, leaving the deficiency \$165,-463.86; 55,700 cubic yards of glacial drift were excavated, mostly by steam shovels. Shovel No. 161 moved 11,000 cubic yards in 24 days, an average of 458 yards per day. Shovel No. 0 handled 11,800 cubic yards in 26 days, or 460 yards per day. Osgood shovel No. 2 took out 11,000 cubic yards in 27 days, an average of 406 yards per day. Shovel 180 excavated 20,500 cubic yards in 27 days, making an average of 760 yards per day. The remainder of the material, 1,400 cubic yards, was taken out with shovellers and small dump cars.

*Section 5*—Work was continued on this section with teams, steam shovels, cars, locomotives and steam hoists, taking out glacial drift, 43,300 cubic yards of which was excavated during the month. About 1,100 cubic yards of solid rock was taken out, and 600 cubic yards of masonry laid. The total estimate amounts to 99 per cent of the monthly rating, and leaves the contract deficiency \$189,893.09 on the 1st inst.

The rock on the west half of the section is now pretty well uncovered, and a cable way and steam hoist are being installed thereon.

At the east end of the section, the steam shovels are making better headway than was expected, the material being more easily handled than its appearance indicated.

*Section 6*—Thirty-one thousand six hundred cubic yards of glacial drift, and 3,500 cubic yards of rock were excavated, and 700 cubic yards of cement masonry laid in retaining walls. This amounts to 50 per cent of the monthly rating, and leaves the deficiency the 1st inst., \$74,742.56.

Most of the glacial drift overlying the rock on the east end of the section has been removed and two more cable ways started.

An air compressor plant was also completed and about ready for operation on the 1st. The revetment of the banks of the west half of the section is proceeding slowly, as considerable filling is required for their cableway tracks, and most of the material excavated is being used for that purpose. The raising of the levee on the

river diversion to grade was also commenced.

*Sections 7, 8, 9, 10, 11, 12 and 13*—These sections continue to make a remarkable rate of progress as will be seen from the following record of the output and percentage:

	<i>Gla. Drift.</i> <i>Cu. Yds.</i>	<i>Solid Rock.</i> <i>Cu. Yds.</i>	<i>Equal to</i>
Sec. 7....	15,700	40,600	133 per cent
Sec. 8....	600	57,300	201 per cent
Sec. 9....	1,000	66,800	268 per cent
Sec. 10....	.....	61,600	219 per cent
Sec. 11....	540	29,400	120 per cent
Sec. 12....	11,793	40,500	167 per cent
Sec. 13....	.....	45,900	185 per cent

*Section 14*—The output on this section was 21,300 cubic yards of glacial drift and 13,200 cubic yards of solid rock which equals 67 per cent of the monthly rating and increases the deficiency on the 1st inst. to \$228,557.69.

The 13,200 cubic yards of rock were taken out by two double derricks in 53 2 10 shifts which gives an average output for each derrick of 248 yards per day.

Derrick No. 1 broke down September 22d, was rebuilt and started again October 27th. Derrick No. 2 was operated nearly all the month. Derrick No. 3 was practically completed and ready to start about the 1st inst. Derrick No. 4 will probably be finished about the last of December. On October 31st the masts of Derricks No. 5 and 6 fell while being raised, completely wrecking them. New masts must be made which will considerably delay their completion. It will be seen that with these six derricks completed and in operation, with an average output equal to the two above quoted, their capacity would be about 3,000 cubic yards per day if worked with double shifts.

While the rock estimate for the month is small, the indications are that a decided improvement may be expected. The contractors expect to remove not less than 29,000 cubic yards during the current month, which I think they should be able to do.

*Section 15*—The glacial drift has been removed with wheel scrapers, teams and wagons, and it is partially removed for the entire length of the section.

The cross levee, 150 feet below the south end of the section, is completed with the

exception of a small opening at the south-east corner, which is left for a roadway for bringing in machinery.

The amount of glacial drift removed was 24,200 cubic yards (20 per cent. of the average monthly rating), which comprises the greater portion of the quantity to be excavated. It opens up a large rock surface, upon which preparation is being made to commence rock excavation.

Three channelling machines were started on the 8th, 9th, and 22d, respectively. On the 17th two steam drills commenced work, and on the 26th the first blast was made. An air compressor was received on the 25th, and a steam rock shovel on the 29th.

The plant on the section at the end of the month was:

- 1 Air compressor (to be set up).
- 3 Channelling machines.
- 2 Power drills.
- 4 Boilers.
- 1 Hoisting engine and incline.
- 1 Steam rock shovel.
- 2 Steam pumps.

The rate of progress made during the month is much smaller than the average called for by the contract, but inasmuch as considerable time is required to procure and install a suitable rock plant, there will probably be little progress made during the current year.

*Conclusion*—I have omitted giving the plant on each section in detail for the rea-

son that they are the same as given in my last report with the exception of such additional machinery as is herein noted.

The total value of the work done during the month is \$595,239.54, which exceeds the average monthly requirement by \$54,982.87 and is equal to 109 3-10 per cent.

While this average rate of progress is very gratifying, it is to be regretted that such average rate is only reached by considering the large excess on certain sections as compensating for the delinquencies on others. This condition demonstrates the fact that the required rate of progress can and should be made. A careful analysis of the status of the delinquent sections shows that most of them are now sufficiently opened up and equipped to warrant the expectation that they will overcome such delinquencies and be completed on time. With the same effort that is employed on some others, there is no section so far in arrears that it may not regain its lost ground.

The approaching winter season is likely to materially interfere with the progress of the work generally, and perhaps preclude the possibility of maintaining progress; hence ample provision should be made for the prosecution of the work during favorable weather.

Respectfully submitted,

(Signed) U. W. WESTON,  
*Superintendent of Construction.*"



**STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE  
MONTH OF OCTOBER, 1894 (MAIN CHANNEL).**

SECTIONS.	Amount Done During October.	Average Monthly Requirement.	Deficiency for October.	Excess Over Monthly Requirement.	Per Cent. of Monthly Requirement.
O.....	\$ 16,380 00	\$ 13,373 30	.....	\$ 3,006 70	122
N.....	3,956 00	10,614 81	6,658 81	.....	37
M.....	14,842 80	6,255 02	.....	8,587 78	237
L.....	5,496 30	8,648 36	3,152 06	.....	64
K.....	8,075 00	11,490 55	3,415 55	.....	70
I.....	19,875 00	11,361 94	.....	8,513 06	175
H.....	5,733 59	11,966 83	6,233 24	.....	48
G.....	12,636 40	15,791 38	3,154 98	.....	80
F.....	5,141 87	7,971 64	2,829 77	.....	65
E.....	.....	22,999 23	22,999 23	.....	00
D.....	12,530 85	15,788 43	3,257 58	.....	79
C.....	19,664 09	13,568 10	.....	6,095 99	145
B.....	1,627 29	13,443 95	11,816 66	.....	12
A.....	29,761 38	24,224 63	.....	5,536 75	123
1.....	28,571 40	53,735 43	25,164 03	.....	53
2.....	21,734 00	18,541 43	.....	3,192 57	117
3.....	41,738 32	28,121 22	.....	13,617 10	148
4.....	27,293 00	19,623 70	.....	7,669 30	139
5.....	16,181 50	16,317 19	135 69	.....	99
6.....	13,379 50	26,619 64	13,240 14	.....	50
7.....	33,845 00	25,462 74	.....	8,382 26	133
8.....	42,831 75	21,295 08	.....	21,536 67	201
9.....	51,629 20	19,232 36	.....	32,396 84	268
10.....	49,280 00	22,472 29	.....	26,807 71	219
11.....	23,462 85	19,493 98	.....	3,968 87	120
12.....	32,096 25	19,200 06	.....	12,896 19	167
13.....	34,310 25	18,588 65	.....	15,721 60	185
14.....	13,896 00	20,653 03	6,757 03	.....	67
15.....	4,598 00	23,401 80	18,803 80	.....	20
Totals.....	\$590,567 59	\$540,256 77	\$127,618 57	\$177,929 39	109 31-100

TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVER

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION		RUBBLE MASONRY.
		<i>Glacial Drift.</i>	<i>Solid Rock.</i>	<i>Glacial Drift.</i>	<i>Solid Rock.</i>	
		Cubic Yds.	Cubic Yds.	Cubic Yds.	Cubic Yds.	Cu. Yds.
O	McMahon & Montgomery Co. et al.	458,400				
N	Hayes Bros. et al.	59,900				
M	The Heidenreich Co.	265,600				
L	The Heidenreich Co.	345,700				
K	Christie & Lowe.	327,600				
I	Christie & Lowe.	533,400				
H	Gahan & Byrne.	126,251				
G	Gahan & Byrne.	444,126				
F	Ricker, Lee & Co.	503,146		158,234		
E	Angus & Gindele.	464,163		95,718		
D	E. D. Smith & Co.	1,048,354				
C	Western Dredging & Imp. Co.	647,469		162,537		
B	Heldmaier & Neu.	523,312		208,626		
A	Heldmaier & Neu.	799,422		120,786		
1	Griffiths & McDermott.	299,026		5,876		
2	McArthur Bros.	486,838	4,000	29,516		
3	Gilman & Co.	325,010	122,484			
4	McArthur Bros.	565,200				
5	The Qualey Construction Co.	534,800	4,300			600
6	Mason, Hoge & Co.	499,100	3,500	112,700		700
7	Mason, Hoge & Co.	167,600	316,300	97,000	41,800	
8	Mason, Hoge, King & Co.	35,800	516,200	56,000	96,900	
9	Halvorson, Richards & Co.	64,700	459,000	37,700	16,000	
10	E. D. Smith & Co.	26,400	767,400	27,400	55,500	
11	Mason, Hoge & Co.	44,032	583,200	5,756	11,483	
12	Mason, Hoge & Co.	27,400	545,500	11,739		
13	Mason, Hoge & Co.	32,822	816,600			
14	Smith & Eastman.	274,000	222,200			
15	Wright, Meysenberg, Sinclair & Carry	24,200				
Total.....		9,958,771	4,360,684	1,129,588	222,683	1,300

Main Channel, glacial drift.....  
 Main Channel, solid rock.....  
 River Diversion, glacial drift.....  
 River Diversion, solid rock.....  
 Rubble Masonry.....

Total amount required to be done November 1st, 1894.....  
 Total amount done November 1st, 1894.....

Amount short as per contracts.....

Total value of work done under contracts November 1st, 1894.....  
 Reserved..... } 12½ per cent.....  
 } 10 per cent.....

Total value of vouchers paid, including those of November 1st, 1894.....  
 Total value of vouchers paid for collateral work, including those of  
 November 1, 1894.....

Total disbursement, construction account.....

NOTE.—\*Overhaul to Levee—Section 1 not included.

†Overhaul to Levee—Section 1 included.

## SION) AND CONDITION OF WORK ON CONTRACTS NOV. 1st, 1894.

Total value of work done to Nov. 1st, 1894, on each section.	Total value of work required to be done to Nov. 1st, 1894.	Amounts behind as per contracts.	Amounts ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary June 1st, 1894, to time of completion.	Progress made during month of October, 1894.
\$ 96,264 00	\$ 80,239 80		\$16,024 20	\$13,373 30	\$13 673 53	\$16,380 00
13,777 00	65,688 86	\$ 49,911 86		10 614 81	11,076 32	3,56 00
57,635 20	43,785 14		13 850 06	6,255 02	6,550 80	14 842 80
68,102 90	60,538 52		7,564 38	8 648 36	8,791 40	5 496 30
81,900 00	80,433 85		1,466 15	11,490 55	12,239 29	8,075 00
133,350 00	79,533 58		53,816 42	11,361 94	11,332 54	19 875 00
36,612 79	83,767 81	47,155 02		11,966 83	13,007 42	5,733 59
124,355 28	110,539 66		13,815 62	15,791 38	16,068 83	12,636 40
157,077 75	151,232 02		5,845 73	9,110 44	8,229 08	5,141 87
155,342 28	178,341 51	22,999 23		22,999 23	22,999 23	
277,158 59	249,603 36		27,555 23	15,788 43	16,182 92	12 530 85
190,351 41	237,131 33	46,779 95		14,820 71	17,235 86	19,664 09
197,623 26	242,882 24	45,258 98		15,180 14	17,648 80	1,627 29
281,813 70	406,502 08	124,688 38		25,406 38	31,590 06	29 761 38
*111,296 36	302,968 01	191,671 65		53,735 43	53,735 43	28 571 40
248,354 98	393,603 00	145,248 02		18,743 00	24,863 58	21,734 00
253,833 54	329,127 12	75,293 58		28,121 22	33,566 96	41 738 32
266,257 54	431,721 40	165,463 86		19,623 70	27,776 89	27,293 00
160,926 50	350,819 59	189,893 09		16,317 19	24,128 73	16,181 50
168,828 50	243,571 06	74,742 56		26,661 51	26,930 88	13 379 50
331,999 50	320,264 54		11,734 96	25,550 84	26,144 27	34,511 00
482,160 25	539,902 69	57,742 44		23,474 03	31,195 19	43 286 75
391,899 00	456,177 17	64,278 17		19,833 79	27,377 55	51 629 20
672,570 00	545,890 59		126,760 41	23,774 33	23,854 68	49 280 00
486,347 15	454,443 43		31,903 72	19,758 41	20,333 49	23,462 85
444,148 30	441,601 38		2,546 92	19,200 06	20,238 28	35,647 30
618,942 22	427,538 95		191,403 27	18,588 65	14,292 26	34 310 25
246,462 00	475,019 69	228,557 69		20,653 03	30,825 84	13 896 00
4,598 00	23,401 80	18 803 80		23,401 80	23,401 80	4,598 00
\$6,759,988 00	\$7,804,189 21	\$1,548,488 28	\$504,287 07	\$550,244 51	\$615,311 91	\$595,239 64

## Cubic Yards.

.....	9,958,771
.....	4,360,684
.....	1,129,588
.....	222,683
.....	1 300
.....	\$7,804 189 21
.....	6,759 988 00
.....	\$1,044 201 21
.....	\$6,759,988 00
.....	\$824 242 99
.....	137,296 14
.....	961,539 13
.....	\$5,798,448 87
.....	†568,150 03
.....	\$6,366 598 90



## FORCE REPORT—DAILY AVERAGE—OCTOBER, 1894.

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Char- nelers.	Air Com- pressors.	Conveyors.	Locomo- tives.	Cars.	Dredges.	Graders.	Steam Tow Boats.	Scows.
O.....	46	4	...	...	...	...	...	...	...	...	5	4.6	...	4.7	13.8
N.....	23	27	...	...	...	...	...	...	...	...	...	...	...	...	...
M.....	122	11	3.4	2.9	...	...	...	...	3.8	...	9	...	...	...	...
L.....	62	4	1.6	5	...	...	...	...	1.6	...	...	...	...	...	...
K.....	49	4	1.9	...	...	...	...	...	1.9	...	...	...	...	...	...
I.....	173	12	5.4	1.9	...	...	...	...	5.4	...	...	...	...	...	...
H.....	44	19	...	6	...	...	...	...	1.0	...	...	...	...	...	...
G.....	96	25	2.0	2.3	...	...	...	...	1.0	...	38	...	...	...	...
F.....	84	5	2.0	3.0	...	...	...	...	...	3.0	21	...	...	...	...
E.....	73	3	.3	1.8	...	...	...	...	...	...	3	...	...	...	...
D.....	100	38	1.7	3	...	...	...	...	4.0	...	31	...	5	...	...
C.....	203	53	2.3	4	...	...	...	...	4.0	...	57	1.0	.2	...	1.0
B.....	118	1	.2	3.1	...	...	...	...	1	...	3	...	...	...	...
A.....	150	3	...	...	...	...	...	...	1	...	18	4.2	...	...	...
1.....	219	7	4.6	5.1	...	...	...	...	7.9	...	96	...	...	...	...
2.....	311	28	2.5	6.9	3.0	2.6	2.1	...	2.0	...	82	...	...	...	...
3.....	539	18	.9	5.1	13.7	2.0	7.4	1.3	6.3	...	44	...	...	...	...
4.....	220	28	3.6	9.2	.3	3.0	.9	...	...	...	26	...	...	...	...
5.....	182	15	2.3	5.9	2.3	1.2	2.1	...	2.8	4.5	95	...	...	...	...
6.....	273	13	2.4	5.7	1.3	3.0	5.0	...	6.6	...	30	...	...	...	...
7.....	394	10	...	13	12.3	1.0	8.1	2.0	8.5	...	16	.1	...	...	...
8.....	395	6	...	7.1	19.0	1.8	7.6	1.0	4.4	...	12	...	...	...	...
9.....	586	20	...	7.6	20.8	3.9	7.5	...	1.7	...	176	...	...	...	...
10.....	398	9	...	4.3	18.5	2.4	8.4	1.0	3.0	...	16	...	...	...	...
11.....	129	7	...	4.5	9.0	...	5.3	1.0	1.8	...	...	...	...	...	...
12.....	241	24	...	4.0	11.7	...	6.6	1.0	2.8	...	...	...	...	...	...
13.....	221	11	...	6.0	11.7	...	4.2	1.0	3.6	...	...	...	...	...	...
14.....	227	11	2.7	7.9	5.8	...	5.6	2.0	2.0	4.7	95	...	...	...	...
15.....	50	35	...	...	.8	...	1.6	...	...	...	...	...	...	...	...
Totals.....	5,728	451	39.8	115.4	130.2	20.9	72.6	10.3	60.2	31.0	873	9.9	.7	4.7	14.8

"CHICAGO, Nov. 8, 1894.

*Mr. Isham Randolph, Chief Engineer:*

DEAR SIR—The work of Division 2 for the month of October was as follows:

The field work of the Joliet survey is finished eastward of the river as far as the alley line between Ottawa and Chicago streets.

Additional soundings were taken in the river from the north end of upper basin at Joliet to a point about 1000 feet northward of the E. J. & E. crossing.

The reduction of field notes and platting of same has been continued.

The level party has run  $75\frac{1}{2}$  miles, making a total of  $175\frac{1}{2}$  miles. This finishes the levels in the following townships: Palos, Orland, Worth, Bremen, Homer and Downer's Grove.

Some further work was done on plats and profiles of Illinois River.

The testing of cement and sand to be used in retaining walls was continued.

Considerable work with reference to railroad location between Bridgeport and Lockport was done.

The work of taking record photographs was continued as was also the maintenance of water gauges.

The development of plans for regulating works, channel through Joliet and improvement of South Fork, were under consideration.

Specifications and rules governing retaining wall work were prepared.

Miscellaneous examinations, pertaining to conduct of construction work, were made.

Expenses of November will approximate to those for October.

Very respectfully,

Signed) THOS. T. JOHNSTON,

*First Assistant Chief Engineer."*

"CHICAGO, Nov. 13, 1894.

*Isham Randolph, Esq., Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of October, 1894.

The main part of the force was engaged in compiling and platting the District and Lower Illinois River maps, the topographical maps at Joliet, between the Rock Island crossing and Dam No. 1,

and between Dam No. 1 and the E. J. & E. R. R., the progress maps and profiles, and the plat books.

With the exception of the topography, which is now being taken by the field party, the original of the District map is nearly finished. The tracing, though not as far advanced as the original, will be finished at the same time. These maps will be done by the early part of December.

The main work on the plat book sheets, between Lockport and Summit, has been finished.

The miscellaneous work finished during the month was as follows:

Two colored topographical maps between Chicago and Joliet, a tracing of Crossman's charts of the lakes, the original and tracing of the Upper Illinois River maps, a plat of the survey and the acreage of Block 139 in Lockport, a tracing of the west part of the 2-inch map between Chicago and Joliet, estimates of acreages in the N. W.  $\frac{1}{4}$  of Sec. 34, T. 36 N., R. 10 E., and the right of way of the C., S. F. & C. Railway between Chicago and Summit, and the reduction of stadia notes taken by the field party.

A part of the new prints for the school maps were received, and the work of coloring them was commenced.

A colored topographical map of the Upper Illinois River Valley was commenced.

The expense for November will be the same as for the past month.

Yours respectfully,

(Signed) EDGAR WILLIAMS,

*Second Assistant Chief Engineer."*

#### APPOINTMENT OF RECORD CLERK.

The Clerk presented a report from the Chief Engineer, notifying the Board of his acceptance of the resignation of Mr. Robert H. Cowdrey, as Record Clerk, and recommending the appointment of Mr. William Trinkaus as Record Clerk to fill the vacancy; and the report was read.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the report be adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the appointment of Mr. William Trinkaus, as Record Clerk, as provided therein, confirmed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley,

Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendations made therein concurred in, and the appointment of Mr. William Trinkaus, as Record Clerk, as provided therein, confirmed.

The following is

#### THE REPORT:

“CHICAGO, Nov. 20, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I am in receipt of a telegram from Mr. Robert H. Cowdrey, Record Clerk, dated Shasta, California, November 16th, tendering his resignation. I have replied by wire to-day, accepting such resignation.

Believing that Mr. William Trinkaus, who has been the Assistant Clerk in the Record Department for more than two years, is fully competent to discharge the duties of the position, I respectfully recommend his appointment to the position now vacant.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.”*

#### SUPPLEMENTAL REPORTS ON BIDS FOR HIGHWAY BRIDGES AND MASONRY AT ROMEO, LEMONT AND WILLOW SPRINGS.

Mr. Russell, for the majority of the Joint Committee on Engineering and Finance, and Mr. Cooley, Chairman, for the minority of the same Committee, presented supplemental reports, with reference to the rejection of the bids for bridges and masonry at Romeo, Lemont and Willow Springs, in accordance with permission granted on the occasion of the presentation of the original reports from said Committee at the meeting held November 14, 1894, (page 2297 of the Proceedings).

Mr. Boldenweck, seconded by Mr. Cooley, moved that the supplemental majority and minority reports be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE SUPPLEMENTAL MAJORITY REPORT:

“CHICAGO, Nov. 21, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The majority of your Joint

Committee on Engineering and Finance, at the last meeting of your Honorable Body, made a report that all bids received for highway swing bridges be rejected, and that the Chief Engineer be instructed to prepare and submit to the Board alternative plans and specifications for fixed bridges of wood and metal. The report contained no discussion whatever as to the policy of the Board in regard to the bridges, nor any recommendation of the views held by the majority of the committee making the report.

A minority report was presented urging that the rejection of all the bids for draw bridges at the Willow Springs, Lemont and Romeo highways, was a reversal of the policy heretofore given expression to by the Board, a breach of faith with the people of the Desplaines and Illinois valleys, a serious handicap to all those who are laboring for the early consummation of a waterway between the lakes and the Mississippi, a hindrance in the way of an ultimate solution of the railway problems, and in short, in various ways attempted to be shown in said report, is ill advised and injudicious. The majority of your Committee had not anticipated any discussion of the relative desirability at this time, on the part of the District, of fixed and swing bridges, but inasmuch as the question was raised, and the charge of a reversal of policy and of bad faith towards the people of the Illinois valley had been made, we deemed it not only just to ourselves, but also due to your Honorable Body, to set forth in some detail the consideration which led us to make the recommendations offered in our report.

We accordingly obtained permission and now offer a supplemental report giving expression to our views upon the questions referred to.

The resolution of December 5, 1891, (page 279 of the Proceedings), referred to as declarative of the policy of this Board, does not bear out the construction put upon it. The portion of the resolution alluded to is:

“Resolved, That in the construction of the main drainage channel as heretofore located by ordinance of the Board of Trustees of the Sanitary District of Chicago, all permanent bridges to be constructed shall be swinging or draw bridges.”

The expression is “all permanent,



bridges," the implication being that occasion might arise where stationary bridges would be, to serve some particular purpose, desirable. Precisely that exigency is before us, and the patent necessities of the situation have forced upon us the conclusion that the interests of the District will be best subserved by constructing for the present, fixed or stationary bridges where bridges across our channel are needed, while at the same time abating no jot or tittle from the determination to construct a great channel which shall conform in every particular to the specifications imposed upon us by our statute, which shall secure to Chicago and this District the benefits sought to be attained, and at the same time assure to the people of the Illinois valley and of the whole state such a channel as shall, with some additional outlay, be readily adapted to transport any vessels which can be borne upon its waters, so soon as the General Government shall have so improved the Desplaines and Illinois Rivers as to make it possible to have any through navigation of any character.

The charge of reversal of policy and of bad faith are not sustained by the facts of the situation. We have not changed our views, frequently expressed, as to the use which may and should be made of our channel for navigation purposes when the time arrives. We do not believe that any member of this Board has any different purpose from that he formerly cherished in regard to this matter. But we are here as practical men to carry out a business project, not to pursue a sentiment. We work under limitations. We can not, if we would, limit the capacity of our channel simply to that which would be sufficient for sewage purposes. Not only that, our resources are also limited. Our power to levy taxes is limited. So also the power to borrow money. It is not so much a question of preference but of possibility.

Even under the most favorable hypothesis that can be framed, viz.: that the General Government should at the next session of congress make the necessary appropriation for a survey and a report of what was needed to make the Desplaines and Illinois Rivers navigable for boats of considerable draft from Joliet to the Mississippi, and follow up the report by abundant appropriations and a vigorous prosecution of the work; even thus, every sober-minded man must

acknowledge that a period of from ten to twelve years must elapse before a work of such magnitude could be completed, and there could be any occasion to use our channel in connection with it.

What then, in the meantime, would be done with swing bridges with no demand for them to swing? How can it be necessary in order to show good faith for this District, at great expense, to erect elaborate swing bridges that they may stand for ten or more years upon their wheels without once turning?

Is it not sufficient evidence of good faith that we have carried the full size of the channel further than the law required, that we have increased its depth two feet beyond the requirements, that, in short, a strict compliance with all the specifications of the law, and more, have been provided for?

It is believed that the interest upon the increased cost of swing over fixed bridges, together with the fixed charges for operation, block signals, etc., would, during a period of ten years, amount to a sufficient sum to pay for the expense of changing from fixed to swing bridges.

Fixed bridges, with a head of twenty-five feet, would permit of the navigation of the channel by all craft that would be likely to seek a passage. Before any use can be made of the banks of the channel, which would produce a revenue from which, according to the report of the minority, we are cutting ourselves off, the spoil banks would have to be removed. This is itself a question of some years.

It is stated that the question of funds is not germane to the problem. In this we differ radically from the minority. While some question might still be raised as to the desirability of building swing bridges so long before there could be any necessity for their use as swing bridges, even if there were an abundance of means, yet the question in such a state of affairs would be shorn of much of its difficulty. But in the present situation, it is chiefly a question of funds.

The District is already under heavy obligations by reason of contracts entered into for the construction of the Main Channel. It is only by the practice of the most rigid economy that it can hope to carry out the work given it, with the means at present

in sight. It is believed that swing bridges at all crossings would add over one million and a half dollars to the cost of the channel.

There can be no use for one or more swing bridges unless all are made so. One stationary bridge would prevent anything in the nature of through navigation, even if all the rest were swing bridges.

Neither do we believe that stationary bridges will increase the difficulties of the ultimate solution of the railroad problem, on the contrary it will greatly simplify it. Should we not be able to come to an amicable arrangement with the railroad companies to cross their tracks, and should we be required to condemn railroad crossings, we do not believe they could recover damage for fixed bridges beyond the cost and maintenance of the bridge; on the other hand we fear it may be possible for them to recover enormous damages for swinging bridges, when the time comes to open up the navigation of our channel in connection with the navigation of the Illinois and Mississippi Rivers. Neither one nor a dozen railroad bridges will prevent it. The railroads must yield to the paramount public necessity. They can acquire no prescriptive rights which shall prevent the future development of the country in the direction of its needs.

In conclusion, the suggestion hinted at in the minority report that we should apply to the Legislature for increased powers of taxation does not meet our approval. We do not believe that an already overburdened people should, at this time, be asked to increase their load.

It is only when the necessity for some such measure can be shown beyond peradventure that it should be asked. It certainly cannot be demanded on the ground that swing bridges erected to be kept locked for a period of years are such a necessity as to warrant our going before the legislature with a plea for increased powers of taxation nor can it be claimed that such bridges are the only possible visible tokens of our good faith.

Respectfully submitted,

(Signed)

B. A. ECKHART,

W. H. RUSSELL,

THOMAS KELLY,

WM. BOLDENWECK,

*Joint Committee on Engineering and Finance."*

The following is

THE SUPPLEMENTAL MINORITY REPORT:

"CHICAGO, Nov. 21, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Without attempting to discuss fully the question of movable vs. fixed bridges for the Main Channel, the following is added in elaboration of some of the points raised in the synopsis submitted at the last meeting. The views of the majority as finally made up for the record are not in evidence at this writing. In any event, it is preferred to forego any discussion of this question, based presumably on the state of the finances and the work yet necessary to be undertaken until official estimates are available, and for this reason the decision of a matter of so much gravity at this time is regarded as premature.

It is not necessary to base an argument on any opinion that may be entertained as to the future commerce that will exist between the lakes and the Mississippi by way of the Illinois Valley, or the length of time that will elapse before a through waterway is developed, and this branch of the discussion will be briefly treated.

The first effect of such a waterway will unquestionably be disappointing, as time will be required to change established courses of traffic, and to adapt the facilities of transportation at local points to the new conditions, but the ultimate effects need not be doubted. If any one policy of the United States Government is better established than any other, it is that the bridge problem on our navigable rivers must be taken care of well in advance of the actual needs of commerce, or that commerce will never develop, and it may be definitely stated that if fixed bridges on the Illinois River route are to wait until an actual commerce requires them to be swung they will never be changed.

The effect of opening the Sanitary Channel is, through its water supply, to extend river navigation through the Illinois below Utica, a distance of some 230 miles from the Mississippi, over which there is no fixed bridge problem, thus leaving a gap of sixty-two miles between Utica and the end of the Sanitary Channel at Lockport. The situation over the seven miles between the end of the channel and Barndon's bridge, at the head of Lake Joliet, through the City of Joliet, should work out in connection with the future development of water power, as an incident of navigation.



Between the head of Lake Joliet and Utica, a distance of 55 miles, the stream is crossed by five highway and two railway bridges only, and it is a question as to whether any expense will attach when it becomes necessary to convert these into movable structures. The bridge question on this route for practical purposes is therefore the problem from Lake Joliet to Lake Michigan, a distance of forty miles.

With the inauguration of the Sanitary District project, the people of the Illinois Valley have looked for navigation to be extended to them from the North rather than from the South. Their best present market is in this direction, and it would seem to be in the commercial interest of Chicago that the waterway should develop from Chicago rather than to have it develop in a manner to encourage traffic in the opposite direction to the detriment of our city.

If the argument is made that movable bridges are of no use on the Sanitary Channel until the river is developed over the next sixty miles, that reasoning acquires ten-fold force when applied from the Illinois Valley standpoint. It can be alleged that effort is useless in view of the bridge obstructions along the Sanitary Channel and the Chicago River and in Joliet, obstructions that will increase with the growth of the city, and that it will cost more to correct at a future time than the entire cost of fourteen feet of water from the head of Lake Joliet to Utica, and the opinions of the last two engineer officers at this station can be cited to show that the obstructions in the Chicago River alone are well-nigh insuperable. So the fixed bridge policy will handicap the efforts of our friends throughout the State in securing the co-operation of the General Government, and discourage the generous support which we have a right to expect throughout the Lake region and in the Mississippi Valley.

There is a more immediate reason, so far as the Illinois Valley is concerned, of an exceedingly practical nature, in that provision of the law which obligates the Sanitary District for any damages that may occur from overflow between Joliet and the Mississippi River, on account of the water contributed from the Sanitary Channel, this obligation taking precedence over any other liability. This liability does not accrue in the event of the General Government undertaking the improvement of the stream in such manner as to properly utilize the water contributed to the river. The amount of

this liability cannot be determined, but the District will indeed be very fortunate if it falls inside the difference in cost between fixed and movable bridges on the Main Channel. It follows, therefore, that if the provision of movable bridges thereby hastens the development of the Illinois River as a waterway by the General Government, it will actually lessen the expenditures of the District. This argument does not require a thorough grounding in the waterway faith to be appreciated.

Without going further into the discussion of ultimate waterway purposes by the Illinois Valley, the present contention may rest solely on the Sanitary Channel itself, on the assumption that the Channel is to terminate permanently at Lockport or Joliet.

The Channel then reduces to a slip, or extension of the Chicago Harbor, for some thirty miles from Bridgeport. This slip, for one-half the distance, is much wider than the Chicago River, and is to have a nominal depth of twenty-two feet at extreme low water, which may be increased to twenty-four and twenty-six feet at ordinary lake level, depending on how the connection with Lake Michigan is ultimately worked out. The law concedes to the District the dockage, which will aggregate nearly sixty miles, and the water-power, to be developed at the lower end, which will aggregate some 60,000 available horse-power between Lockport and Lake Joliet, or more than double that which determined the thriving metropolis of Minnesota, the City of Minneapolis.

In the proper laying out of its work, the District has nearly acquired upward of 7,000 acres of land, or about eleven square miles. All this dockage and water-power is to be developed on District property, and it is to be hoped that it will be held inalienable in perpetuity for the enjoyment of all the people. That it was believed to have a large prospective value is evidenced by that provision of the law which reserves the right to exact a part of the revenue therefrom in lieu of taxes.

It is an extremely pessimistic view to suppose that this property cannot be developed to a value much greater than the entire present expenditure by the time the bonds are all paid and a considerable part of this value should attach in the next ten years. To the development of this value, however, movable bridges are necessary, so as to make accessible the entire property to all classes of water



craft. If the property of the District were to be listed as an asset at the time the channel is opened, proper navigable access would justify a valuation several times the mere difference in cost between fixed and movable bridges.

We have here, between Bridgeport and Summit, the mud lake region, which is specially laid out by nature for the development of slips and unlimited harbor facilities; we have beyond a valley, with a waterway down its middle and flanked on either side by a railway at the foot of the bluff, an unequalled site for manufacturing development, backed up with sloping hillsides for healthy homes. The duplicate of this situation cannot be found about the great lakes, and the revenue that should be derived at an early day through a wise policy should pay by several times the interest on any additional investment required to give marine access to this property.

That this Board at one time entertained this view is evidenced by its agreement with the Western Stone Company, (July 27, 1892, page 646 of the Proceedings, clause "H" of the contract), wherein as part consideration for certain property it was stipulated that the Channel should be so bridged as to permit the use "of boats of a proper size to be used on said Channel." The provision for fixed bridges would appear to violate the letter and the spirit of this contract.

The contracts for the improvement of the connecting shallows of the great lakes on a basis of twenty and twenty-one feet, are to be completed in November, 1895, and all the recent vessels have been built to avail themselves of this depth. So in 1896 vessels drawing four feet more water than can be accommodated in the Chicago River are to pass freely from the ports of Lake Erie to those of Lake Superior and Lake Michigan. This is a matter of moment, when we consider that about one-third of the commerce that is locally consigned and shipped is by water. The only provision that can be made to meet this emergency, and it will appeal to our citizens as a very live question when it comes, will be to so connect our channel with Lake Michigan as to make its larger depths available for harbor purposes, and by the same tokens the large property holdings of the District will assume an immediate value, provided the channel is so bridged as to be capable of utilization.

It will be conceded that when the Main

Channel has been adequately developed on the theory of its practical utility as a part of the harbor system, that the argument for a proper navigable connection with Lake Michigan gains great force and enlists a wider and an immediate interest. On the contrary, not to make this development is to strengthen the hands of those who wish to see all harbor development removed to regions remote from the center of taxation and commerce, and all because a minor item of cost is allowed to outweigh a fundamental utility.

Nor is this fine prospect of a valuable property defeated by the waste banks that encumber the lands of the District. This depends solely on the point of view, and from the one here assumed these banks have untold possibilities in the creation of property of almost unlimited value. Their volume is adequate to the filling in of 1,500 acres of land for park and business purposes along the Lake Front of Chicago, and the value of 100 acres thereof will pay for filling in the whole 1,500 acres of city front, and at the same time clear the right of way and make the entire 7,000 acres available for commercial uses. Thus we have before us the unique proposition that the bigger and more extensive the works of the District, the more profitable is the undertaking.

It is not necessary to argue the utility of this proposition at this time. The Sanitary District has already provided for the utilization of some of its dock frontage by leases to the Western Stone Company and the Illinois Stone Company, and has had several propositions to lease part of its rock banks for the purpose of removing the same as crushed stone. Several propositions have been publicly advocated, involving the filling in of tracts along the Lake Front. We may be sure that in the course of time large areas of land will be cleared of waste material from normal demands alone, and perhaps as fast as will be necessary to accommodate a natural industrial development. Should this be insufficient, it will always be feasible to clear up the right of way for five hundred thousand dollars per mile, or fifty dollars per foot for each dock front, and this proceeding will be justified when a yearly rental of \$2.50 per frontage foot is obtainable. It is needless to remark that the clearing of the right of way, however accomplished, will be facilitated by movable bridges, and that such clearing could not be justified without the same.

If fixed bridges are to be adhered to on

the plea of temporary expediency, the legal status of any proposition to condemn at a future time for a further purpose not essential to the sanitary situation is certainly contestable. It is believed that the movable bridge may be now justified outside of its relation to navigation and property interests, and on account of the better facilities thus afforded for enlarging the channel for the purpose of complying with the law in respect to the progressive development of channel capacity with the growth of population, and also in facilitating the maintenance of the channel.

In the absence of detailed estimate, the cost of movable bridges and damages, meaning thereby the capitalized cost of maintenance and operation, may be taken on a liberal basis at two million, five hundred thousand dollars, while the cost of fixed bridges on the same basis will be at least one million, five hundred thousand dollars; with a certainty that very little of the fixed bridge investment will be available to reduce the cost of movable bridges when it shall be desired to adopt the same. We are advised that the prospect of consequential damages are too remote for consideration, so one million dollars may be assumed as the present limit involved as between a policy of fixed and a policy of movable bridges. This will not be four per cent. of the actually necessary expenditure on the sanitary side alone, and considered in connection with the liabilities in the Illinois Valley, and, for the enlargement and maintenance of the Main Channel and for substituting movable bridges at a later date, the movable bridge policy will actually result in a diminished expenditure. Be that as it may, the navigation interests of this work must indeed be of the most puerile character when they fail to justify an extra expenditure of four per cent. solely in their behalf.

The plea is made that the money is not in hand, that the sanitary side of the work will in some way not stated be sacrificed, and that access to the District property is to be had by lighterage. The lighterage and towing charges on lumber, ore and coal will be a large proportion of the entire lake rate; in other words, the proposition is one for the entertainment of the marines.

No members of this Board can exceed the undersigned in their desire for the earliest possible sanitary solution, and rather than defer that solution for a single season beyond the time actually demanded by the most energetic policy, we advocate the supreme necessity of im-

mediately ascertaining the cost of all work yet required, and of making every endeavor to correct any deficiency of revenue that may exist. In our earnestness in this matter we defer to no one. That the sanitary situation is to be cared for goes without saying, but this obvious necessity should not blind us to the manifest commercial advantages that may be now incidentally secured by a relatively small expenditure.

The financial situation and the sanitary uses of this channel do not turn on the bridge question. The navigable utility of the work is the only aspect in which it is tolerable to wide interests about the great lakes and in the Mississippi Valley, and was the basis of the compromise which underlies the law; in fact, is the only factor of interest outside of Chicago. The movable bridge is the trade mark by which the outside world will judge the character and usefulness of our work, and no amount of argument or explanation will avail in its absence.

Some of the arguments herein made may appear to be based on remote possibilities. The remoteness of objects is largely a question of a willingness to get there, and due energy in the process.

To a person who is indisposed there comes no motive force to close the gap to the nearest possibility, and the most obvious benefits may thus be indefinitely postponed. There is no possibility in conjunction with this great work that may not be attained in due season if this Board is so disposed, but they will not be realized by talking in one direction and voting in the opposite.

In conclusion, we can but reiterate the wish expressed in the report submitted at the last meeting that the final consideration of the bridge question be deferred to a more opportune season, after the complete estimates of necessary works have been made and the cost in relation to revenue specifically ascertained, and we may add that it might be well to again refer the interpretation of this question to that great body through which conflicting interests were compromised in the organic law, under which we are now acting. From our standpoint, however, the broad interpretation is so obviously to our own advantage as to leave no excuse for consulting the other fellow.

Respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

JOHN J. ALTPETER,

*Of Joint Committee on Engineering and Finance."*



REPORT ON CONSTRUCTION OF ROADWAY  
FROM CALIFORNIA AVENUE TO  
SUMMIT, AND OF DYKE AT  
COLUMBIA PARK.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to the construction of roadway from California avenue to Summit, recommending that the cost of completing said road be paid by the District and charged to certain contractors, as set forth in the report, and also recommending that the Chief Engineer be authorized and directed to construct a dyke across the bed of the Desplaines River at Columbia Park, as provided in the report; and the report was read.

Mr. Cooley, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

The following is

THE REPORT:

“CHICAGO, Nov. 21, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—The Committee has had brought to its attention a bill for \$364.00, for work done under the direction of the Marshall, in constructing a road from the Western Indiana Railway to the Range Line at Summit, in front of Contract Sections G, H, I and K. In accordance with the well understood policy of the District, the Marshal has constructed a highway throughout the work from Western avenue to Lockport, acting specifically under the authority conveyed in the report of this Committee, concurred in at the meeting held January 24, 1894, (page 1716 of the Proceedings).

In compliance with this report, the Marshal has submitted certain recommendations which are still in the hands of the Committee to which they were referred. It appears that the road, in large part, has been constructed through the co-operation of the contractors for the several sections opposite the high-

way, and that for the sections in question similar co-operation was promised but was not actually furnished, so that the Marshal was under the necessity of having the road constructed by other arrangements.

The bill for said work should be paid, and, in equity, should be charged to the contractors for these sections, and your Committee therefore recommends that the amount expended be authorized and charged to the accounts of the contractors for these sections.

Meantime, the necessity for maintaining the road continues, and the Marshal should be left free to exercise such authority as he has until the Committee has acted finally on his recommendations.

The Chief Engineer has called the attention of the Committee to the advisability of constructing a temporary dyke across the bed of the Desplaines River at Columbia Park, for the purpose of maintaining the water level in order to facilitate the hydraulic dredging above the Willow Springs Road.

The Committee regards the proposed work as proper, as it will diminish the amount of dredging necessary, and we therefore recommend that the Chief Engineer be authorized and instructed to construct the said dyke and remove the same when it is no longer useful, at a cost not to exceed three hundred (\$300) dollars.

All of which is

Respectfully submitted,

(Signed)

L. E. COOLEY,

*Chairman.*

WM. BOLDENWECK,

W. H. RUSSELL,

JOHN J. ALTPETER,

THOMAS KELLY,

*Joint Committee on Engineering and  
Finance.”*

REPORT ON HOSPITAL FUND, RESOLUTION  
AND SANITARY INVESTIGATIONS.

Mr. Gilmore, Chairman, presented a report from the Joint Committee on Health and Public Order, Labor and Judiciary, with reference to the resolution concerning the creating of a uniform hospital system on the Main Channel, presented and referred to that Committee at the meeting held October 31, 1894, (page 2283 of the Proceedings) and recommending that the Sanitary Inspector, in conjunction with the Marshal, be di-



rected to investigate and report to the Committee in regard to existing sanitary conditions on the Main Channel; and the report was read.

Mr. Gilmore, seconded by Mr. Altpeter, moved that the report be adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

The following is

#### THE REPORT:

“CHICAGO, Nov. 21, 1894:

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Joint Committee on Health and Public Order, Labor and Judiciary, to whom was referred at the meeting held October 31, 1894, (page 2283 of the Proceedings) a resolution requesting that the contractors deposit with the Clerk of the District the amount retained from the wages of employes, for the purpose of creating a uniform hospital system, respectfully report that they have considered the matter, together with the general sanitary condition of the camps along the line and the care of the workmen, and report as follows:

The Committee has discussed at length

the question of the best method of taking care of the sick and injured employes on the channel, and at former conferences with members of the Board the contractors have promised to take proper care of the men, but of late there has been some laxity in the matter. Before a final conclusion is reached, we deem it advisable that all facts in the matter be laid before the Committee, and therefore recommend that the Sanitary Inspector, in conjunction with the Marshal of the District, be instructed to examine all bunk-houses, sources of water supply and the exact status of all sanitary conditions existing on the channel, and report in writing the result of such investigations to this Committee, with a view of bettering such conditions and bringing about the proper medical and surgical care of the employes.

All of which is

Respectfully submitted,

(Signed) A. P. GILMORE,  
*Chairman.*

JOHN J. ALTPETER,  
THOMAS KELLY,  
WM. BOLDENWECK,

*Joint Committee on Health and Public Order, Labor and Judiciary.”*

#### ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Kelly, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*









PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

NOVEMBER 28, 1894.

**OFFICIAL RECORD.**

*Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

**REGULAR MEETING.**

The two hundred and forty-ninth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, November 28, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8) members, were present.

**MINUTES.**

The minutes of the regular meeting held November 21, 1894, were approved

as printed, on motion of Mr. Gilmore, seconded by Mr. Kelly.

**VOUCHERS.**

The Clerk presented the following vouchers:

**ENGINEERING DEPARTMENT.**

*Construction Account—*

Western Stone Co. (Sec. 10, extra work, maintenance of Quarry No. 5 track, October 1st, 1894, final).....	\$539 01
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**ENGINEERING DEPARTMENT.**

P. E. McCaughey, (repairing tow path, Secs. G, H, I and K).....	\$364 00
Cameron, Amberg & Co. (stationery).....	17 98
Jacobs, Coles & Co. (stationery).....	14 19
A. C. McClurg & Co. (stationery).....	5 63

S. D. Childs & Co. (stationery).....	\$ 6 68
Ryan & Hart (printing).....	3 25
Bradner Smith & Co. (stationery).....	9 35
Dennison Mnf'g. Co. (shipping tags).....	2 00
Keuffel & Esser Co. (drafting material)...	28 44
A. H. Abbott & Co. (drafting material)...	13 30
Post & Jacobi Co. (drafting material)...	40 19
The Tobey Furniture Co. (furniture).....	47 00
Gerts, Lumbard & Co. (paint brushes).....	1 05
The Fuller Warren Co. (stoves).....	90 55
Frederic Young, (tin tubes).....	5 10
Wm. Kirkham, (gauge reading, Oct., 1894)...	10 00
Wm. McGinnis, (gauge reading, Oct., 1894)...	10 00
Geo. Brainard, (gauge reading, Oct., 1894)...	10 00
E. Hastings, (gauge reading, Oct., 1894)...	10 00
Mary Rusk, (gauge reading, Oct., 1894)...	10 00
Hiram A. Miller, (traveling).....	14 57
	<hr/> \$713 28

## LAW DEPARTMENT.

S. D. Childs & Co. (stationery).....	\$ 0 84
Cameron, Amberg & Co. (stationery).....	16 57
Bradner, Smith & Co., (stationery).....	6 00
A. C. McClurg & Co. (stationery).....	1 21
P. F. Pettibone & Co. (stationery).....	1 65
	<hr/> \$26 27
Grand total.....	<hr/> \$1,278 56

Mr. Kelly, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, (*except as to Western Stone Co. voucher for \$539.01*). Boldenweck, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 485, Law Department, (stationery)..... \$ 15.00

No. 932, Police Department, (hay and sundry supplies).....	\$131 00
Total.....	<hr/> \$146 00

Mr. Kelly, seconded by Mr. Boldenweck, moved that Requisitions No. 485, for the Law Department, and No. 932, for the Police Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and Requisitions No. 485, for the Law Department, and No. 932, for the Police Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending November 24, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, Nov. 28, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending November 24, 1894, as the same have been reported to me:

Engineering Department.....	140
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	47
Total employes.....	<hr/> 200

Respectfully submitted,

(Signed) THOS. F. JUDGE,

*Clerk.”*

## ADDITIONAL EXTENSION OF TIME FOR COMPLETION OF LEVEES ON SECTIONS 1 AND A.

The Clerk presented a report from the Chief Engineer, asking a further extension of time additional to that granted at the meeting of the Board held September 26, 1894 (page 2231 of the Proceedings), to December 20, 1894, as set forth in



the report, for the completion of the River Diversion levees on Sections 1 and A, under contracts with Griffiths & McDermott and Heldmaier & Neu; and the report was read.

Mr. Kelly, seconded by Mr. Russell, moved that the report be adopted, ordered printed and placed on file, and the extension of time to December 20, 1894, asked for therein, granted.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the extension of time to December 20, 1894, asked for therein, granted.

The following is

#### THE REPORT:

“CHICAGO, Nov. 27, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On September 26th (page 2231 of Proceedings) you granted an extension of time for completing the levee on Sections 1 and A to November 15th. That work is still incomplete and I therefore ask you to grant a further extension for this work until December 20th. A gap of about 700 feet remains to be filled.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.”*

AUTHORITY FOR REMOVAL OF HARD MATERIAL IN RIVER DIVERSION ON SECTIONS A AND 1.

The Clerk presented a report from the Chief Engineer, with reference to the removal of certain hard material in the Desplaines River Diversion on Sections A and 1, additional to the work of the hydraulic dredge, requesting authority to have the same done under conditions as set forth in the report; and the report was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, and the Chief Engineer authorized to have the hard material removed, as set forth in the report, at an expense not to exceed one thousand (\$1,000) dollars.

Mr. Eckhart, seconded by Mr. Altpeter, moved as a substitute that the re-

port be ordered printed and referred to the Joint Committee on Engineering and Finance.

On roll-call, on the motion to substitute, the vote stood: Yeas—Messrs. Altpeter and Eckhart—two (2). Nays—Messrs. Boldenweck, Gilmore, Kelly, Prendergast, Russell and Wenter—six (6).

Upon which result the President declared the motion to substitute lost.

On roll-call, on the original motion of Mr. Kelly, the vote stood: Yeas—Messrs. Boldenweck, Gilmore, Kelly, Prendergast, Russell and Wenter—six (6). Nays—Messrs. Altpeter and Eckhart—two (2).

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the Chief Engineer authorized to have the hard material removed, as set forth in the report, at an expense not to exceed one thousand (\$1,000) dollars.

The following is

#### THE REPORT:

“CHICAGO, Nov. 27, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—The work of the hydraulic dredge in the Desplaines River opposite the levee on Sections Nos. 1 and A has been successful with one exception. It has been unable to dislodge and remove one or two masses of boulder-laden drift which have been forced out into the channel. I ask your authority to make arrangements with the contractors for Section No. 1, or in the event of failure to agree upon satisfactory terms with them, then with outside parties to remove these obstructions by dry methods so soon as the dredge is withdrawn from the River Channel and the dam at Columbia Park removed.

The amount of material to be removed to clear the channel out to a grade line 6 feet below datum is about 2,000 cubic yards, as estimated by Mr. H. B. Alexander, Assistant Engineer in charge. The authority for this river work fixed the yardage to be removed between the minimum of 100,000 and the maximum of 200,000 cubic yards. The dredge work will probably reach 115,000 cubic yards.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.”*

ADDITIONAL APPROPRIATION FOR COM-  
PLETION OF TOPOGRAPHICAL  
MAP OF DISTRICT.

The Clerk presented a report from the Chief Engineer, asking an appropriation of \$600 additional to that of \$1,000 already granted at the meeting held August 15, 1894, (page 2102 of the Proceedings), to be expended on survey for the completion of the topographical map of the District; and the report was read.

Mr. Kelly, seconded by Mr. Russell, moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

THE REPORT:

"CHICAGO, Nov. 28, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—On August 15th last (page 2102 of Proceedings), you appropriated \$1,000 to defray the expense of carrying on the surveys needed to supply the data required for completing the topographical map ordered by you on November 16th, 1892 (see page 884 of Proceedings). The party doing this work has accomplished 240 miles of levels with side notes needed for filling in the map, and the territory remaining to be covered involves the taking of 100 miles more of levels. The appropriation, however, is now exhausted and the party must be disbanded unless you authorize its continuance and make the necessary appropriation for paying the men. At the same rate of progress already made the work would be completed in six weeks, but in such weather as we have a right to expect, two months will probably be required, which means a further expenditure of about \$600.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

DELINQUENCY OF WORK ON SECTION F.

The Clerk presented a report from the Chief Engineer and Attorney, with reference to the delinquency and the condition of the work of Ricker, Lee & Co., on Section F, setting forth the power of the Board with reference to the immediate resumption of said work; and the report was read.

Mr. Eckhart, seconded by Mr. Bolden-

week, moved that the report be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the report was ordered printed and so referred.

The following is

THE REPORT:

"CHICAGO, Nov. 27, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—After getting all of the facts in the case of Ricker, Lee & Co., contractors for Section F, we find that on the 1st of this month they had remain-

ing to their credit on progress only \$5,845.73, which sum represents 19½ days of progress on their regular rating, so that their credit for advanced progress expired on the 20th inst. It is therefore in your power to require an immediate resumption of work, and upon failure to comply with your order to proceed at once under the abandonment clause of their contract to advertise the work and, as in the case of Section E, to place the section under contract for Ricker, Lee & Co., holding them and their bondsmen according to the terms and conditions of their contract.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*  
GEO. E. DAWSON,  
*Attorney."*

\* CLOSING OF OFFICES ON "THANKS-  
GIVING DAY."

Mr. Russell presented an order directing that the offices of the District be closed on Thursday, November 29, 1894—"Thanksgiving Day"; and the order was read.

Mr. Russell, seconded by Mr. Bolden-  
weck, moved the adoption of the order.

The motion prevailed unanimously, and the President declared the order adopted and the offices of the District ordered closed as provided therein.

The following is

THE ORDER:

"Ordered, That the offices of the Sanitary District of Chicago be and they are hereby ordered closed on Thursday, November 29, 1894, the same being 'Thanksgiving Day'—a legal holiday."



DETAILED AND REVISED ESTIMATES OF  
ALL WORK TO BE PREPARED BY THE  
CHIEF ENGINEER.

Mr. Boldenweck presented an order, instructing the Chief Engineer to present to the Board by January 2, 1895, a detailed estimate of the quantity and cost of all the authorized work of the District, prepared as provided in the order; and the order was read.

Mr. Boldenweck, seconded by Mr. Russell, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Chief Engineer instructed as provided therein.

The following is

THE ORDER:

“WHEREAS, A period of two years has elapsed since actual work was begun on the Main Channel, and the work of the District is now so far developed as to enable a very close estimate to be made of the several classes of work called for under our contracts; and

WHEREAS, The estimates already presented to this Board have been based upon center line elevations, and are to that extent approximations; therefore, be it

*Ordered*, That the Chief Engineer is hereby instructed to submit to this Board, by Jan. 2d, 1895, a detailed estimate of quantities and cost of all work authorized upon the Main Channel and upon the River Diversion, and any other collateral work, based upon actual cross sections taken on said work, and also to report the actual state of progress upon said work; and, be it further

*Ordered*, That said estimate be made from returns furnished and signed by the several Assistant Engineers in actual local charge of such work; that they be based on the detailed field notes used in making progress estimates of the work, so far as the same may suffice, and that the nature of the authority for each estimate be set forth therewith.”

JOINT REPORT TO BE MADE ON RIVER  
DIVERSION AND GUARD BANK.

Mr. Boldenweck presented an order, instructing the Chief Engineer, in conjunction with the Superintendent of Construction, to report fully on the condition

of the River Diversion and adjacent guard bank, as set forth in the order; and the order was read.

Mr. Boldenweck, seconded by Mr. Russell, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Chief Engineer and Superintendent of Construction instructed as provided therein.

The following is

THE ORDER:

“*Ordered*, That the Chief Engineer, in conjunction with the Superintendent of Construction, be and he is hereby instructed to report fully upon the condition of the River Diversion and the guard bank adjacent thereto, and their opinion as to the sufficiency of said work to withstand extreme high water and fully protect from interruption and damage the work on the Main Channel, and they shall recommend any additional work that may be needed, and for which authority is not yet granted, and said report shall be submitted as soon as practicable.”

DRAINS AND OUTLET ON PRESCOTT LAND.

The Clerk presented a communication from Mr. George Mills Rogers, Attorney for Philip M. and Mary A. Prescott, accompanied by one enclosure, with reference to the laying and maintenance of drain pipe and outlet on the Prescott land, and the protection of the said land; and the communication was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the communication be ordered printed, and, with enclosure, referred to the Joint Committee on Finance and Engineering.

The motion prevailed unanimously, and the communication was ordered printed, and, with enclosure, so referred.

The following is

THE COMMUNICATION:

“CHICAGO, Nov. 15th, 1894.

*The Board of Trustees of the Sanitary District of Chicago, Rialto Building, City:*

GENTLEMEN—Some time ago I called the attention of the Board to the fact that they had not complied with the pro-



visions of their agreement, made when they purchased property from Philip M. and Mary A. Prescott for drainage purposes, in that they did not properly protect the other property of the Prescotts, which they did not purchase, from overflow.

Since that time nothing has been done to remedy the evil, and a few days ago I received a letter from one of their tenants (a copy of which is enclosed herewith) which speaks for itself.

We have been unable to collect any rent from this tenant for the past two years, he always giving as an excuse substantially what he sets forth in his letter.

I feel that it is my duty, representing the Prescotts, to see that some reparation is made for the damage which has been done, and unless some satisfactory settlement is made, I shall be obliged to commence suit. I would be glad to settle it without suit, however, and will be obliged to you if you will refer me to some one authorized to represent the Board in this matter.

Very truly yours,

(Signed) GEO. MILLS ROGERS."

(One (1) enclosure).

#### CONDITION OF TRESTLE ON SECTION 1.

The Clerk presented a communication from Griffiths & McDermott, with reference to the condition of the trestle on Section 1, claimed to be due to hydraulic dredge work; and the communication was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

#### THE COMMUNICATION:

"CHICAGO, Nov. 24, 1894.

*Frank Wenter, President, Isham Randolph, Chief Engineer, Board of Trustees, Sanitary District:*

GENTLEMEN—We wish to call your attention again to the hydraulic dredge you now have at work in the Main Channel of the Desplaines River, and if same is not stopped at once, it will cause the trestle to again collapse.

We wish you would give this matter

your immediate attention, as we shall look to you for all damages or delays we may sustain in this matter.

Yours truly,

(Signed) GRIFFITHS & McDERMOTT."

#### CLAIM FOR HYDRAULIC DREDGE WORK ON SECTIONS 6 AND 7.

The Clerk presented a communication from Chas. Vivian & Co., making claim for payment for dredge work done on Sections 6 and 7 of the Main Channel, under agreement made by the District, assigned to and assumed by Mason, Hoge & Co.; and the communication was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the communication be ordered printed and referred to the Joint Committee on Judiciary and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

#### THE COMMUNICATION:

"LEMONT, Ill., Nov. 27th.

*The Honorable Board of Trustees, Sanitary District of Chicago:*

GENTLEMEN—On March 24th last, the Sanitary District made an agreement with us to do certain work on Sections 6 and 7 of the Main Drainage Canal. The work was done according to said agreement and payment received for same until April 20th, when Messrs. Mason, Hoge & Co. assumed your contract with us. They paid us promptly for the work we did until September 1st. There is now due us from Messrs. Mason, Hoge & Co. \$10,137.82, being the sum for 46,081 yards of material excavated from Sections 6 and 7, according to the report of your Engineers. The contractors have been paid for the work we performed, and we have done our best to get a settlement of this account from them before troubling you, and have made some concessions in order to obtain a just settlement of our claim, without success. We, therefore, respectfully ask you to inquire, have we done all our contract requires? If so, you will in justice see that Messrs. Mason, Hoge & Co. fulfill the agreement of yours, which they assumed.

We were entitled to receive the money due us nearly a month since, and the delay is a serious loss to us by preventing commencement of other work, as we are compelled to remain idle until we receive the money due.

We ask your speedy attention to our claim, feeling confident that upon hearing a statement of all particulars, you will decide that our claim be adjusted before any more money is paid by you to Messrs. Mason, Hoge & Co.

Respectfully yours,

(Signed) CHAS. VIVIAN & Co."

CLAIM FOR DAMAGES TO COLUMBIA PARK BUILDINGS.

The Clerk presented a communication from Mr. Geo. W. Plummer, Attorney for the Columbia Park Company, enclosing bill, being claim for painting park buildings said to have been damaged by blasting in the River Diversion, as set forth in the communication; and the communication was read.

Mr. Gilmore, seconded by Mr. Kelly, moved that the communication be ordered printed and, with enclosed bill, referred to the Committee on Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

THE COMMUNICATION:

"CHICAGO, Nov. 27, 1894.

*To the Drainage Commissioners:*

GENTLEMEN—Enclosed please find bill

of \$350, for painting done for Columbia Park Company by Henry Rahn.

This painting was rendered necessary by reason of the breaking of the roofs of the different buildings, caused by the blasting done in making the River Diversion. Carpenter work was done and paid for by your Board. Your attention was called to the painting and you were requested to do it, but as you did not, Columbia Park Company had it done, and now request that you pay the enclosed bill.

This bill is for painting the ceilings only. The rest of the painting of the buildings, although necessitated by the painting of the ceilings, was paid for by the Park Company, and for which no claim is made.

Please give this your consideration, and oblige,

Yours very truly,

(Signed) G. W. PLUMMER,  
*Attorney."*

(Accompanied by bill).

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Russell, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*





# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

DECEMBER 4, 1894.

#### OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

#### ANNUAL MEETING.

The fifth annual meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Tuesday, December 4, 1894, at 2 o'clock P. M., pursuant to the rules.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7), and subsequently Mr. Gilmore, making a total of eight (8) members, were present.

#### ANNUAL MESSAGE OF THE PRESIDENT.

The President then presented his an-

nual message, which was read by the Clerk.

Mr. Boldenweck, seconded by Mr. Russell, moved that the message be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

#### THE MESSAGE:

“CHICAGO, December 4, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—Since my term of office as President of your Honorable Body this day expires, and upon you, as Trustees, devolves the duty of electing my successor, I feel that after having been placed by you for three times in succession in this position of trust, I should, after these years of labor engaged in common with you all, submit a

statement, covering not only the past twelve months, but also incidentally referring to the two preceding years.

These years, passing before my vision, recall many incidents that were to the utmost trying to the wisdom and capacity of this Board. When, in the consideration of the intricate problems presented, the minds of the individual members were at variance; when questions of such a nature presented themselves that time for reflection was required in order that they might be fully understood when at times members of the Board disagreed, a prolongation of which boded no good to the success of our enterprise.

During all this time, a period of three years, I have labored with you at every committee meeting. What assistance I may have rendered must be left to your judgment.

When this Board started out, it had nothing to pattern after. There was but an act, creating the Sanitary District, describing the size of the channel to be built, the functions of the Trustees, and the possible financial resources of the District. An impatient public was asking and awaiting sanitary relief, without fully understanding or conceiving the immensity of the enterprise. To-day, after three years of activity by this Board, we see the most interesting scene in the nature of a public work on this continent.

Taking a birds-eye view at Summit, looking east toward this mighty city, we see machinery and apparatus, stupendous in size and most ingenious in its construction; looking west down the valley of the Desplaines, to the right is the new river bed of the Desplaines, called the River Diversion, which is in itself a very formidable work; to the extreme left is the old Illinois and Michigan Canal; between the old Canal and the River Diversion we notice the majestic outline of Chicago's great Drainage Channel, stretching west and southward down to Lockport. In its path is massed machinery of all patterns and constructions, emanating from the inventive brain of American genius.

The work on the great Channel is a field of study for the engineer, a school of instruction for the contractor and builder, a grand sight for the layman. The geologist

is interested in the store of prehistoric relics.

Chicago may well be proud of this formidable work. It is gigantic in its proportions, daring in its execution, and the magnitude of the enterprise is such that even the Government of the United States, had it undertaken the same, could say that it was a task worthy of a Nation; for France points with pride to the Suez, England but recently finished the Manchester Ship Canal, Germany has about completed the canal that connects the North Sea with the Baltic, and our Channel has a greater cross-section than any of these.

While our Channel is primarily being built to answer the sanitary requirements of the present and the future, yet nothing has been left undone to make it possible that the same can be used for navigation as an outlet to the south on the assumption that the United States Government will ultimately construct the necessary link from Lockport to the City of La Salle, a distance of sixty-five miles, and from La Salle to the mouth of the Illinois River, a distance of two hundred and twenty miles.

Until such time no expenses will be incurred by this District for structures in anticipation of such results. When that time arrives, the District will be in better condition financially to meet these expenses, as for the present every dollar in sight is needed to finish the Channel and make it at once available for that use for which it is primarily intended.

In January last, while the Committee on Rivers and Harbors was considering the annual appropriation to be recommended to the House of Representatives, I had the opportunity, representing your Honorable Body, to be heard in relation to the widening and deepening of the Chicago River. Heretofore all appropriations were applied to the outer harbor and the mouth of the river. Through the united and persistent efforts of our Chicago members of Congress, an appropriation of twenty-five thousand dollars for the Chicago River was recommended by the Committee to the House. This is not a very large amount, but it is a step in the proper direction, for it places the matter on the annual appropriation list, and if the Chicago Members of Congress will exert themselves to secure

the placing of one of their number on the Committee on Rivers and Harbors, Chicago may receive such recognition as is commensurate with her commercial importance.

I take pleasure in noting that during the last six months there has been an awakening on the part of the people of Chicago to the magnitude of the work in which this District is engaged. Early in the season a number of public spirited citizens visited and inspected the work, and it is needless to say that great surprise was manifested on every occasion. Since then the interest has grown to such extent that the leading clubs of the city, men of all professions, societies, teachers, and pupils of schools have visited the various points of interest. The people of Chicago, and, I may say, of the entire country, will miss a rare opportunity if they fail to visit the scene of operations, for a like opportunity will probably not again present itself during the life-time of this generation.

The present condition of the work is as follows: The entire length of deep cutting is under contract from Robey street, Chicago, to Lockport—twenty-eight miles. From Lockport to the Upper Pool of Joliet (the so-called tail race), a route was adopted that presents a most favorable situation for the development of considerable water-power without materially adding to the necessary expense of conveying the water down to the Upper Pool. From the Upper Pool, through the City of Joliet, plans are being prepared for adoption, and I see no reason why, by the exertion of due diligence on the part of the Board, every piece of work necessary to carry the water off may not be under contract by early spring.

At this time (December 1, 1894) more than forty per cent of the material in the Channel has been excavated, which shows remarkable progress, considering the time required to construct the new River Diversion and to install complete plants for the execution of work of this kind. It must be further considered that out of the first letting in the summer of 1892, Sections 1 to 14 inclusive, but six sections remain in the hands of the original contractors. The other eight were either relet or assigned to new parties, and two of the six remaining sections were adjusted. These assign-

ments and relettings were due to a failure to comply with the contracts in not making the necessary progress.

From Willow Springs to Summit, Sections A to F inclusive were put under contract in the spring of 1893. Section E has within the last three months been relet, as the original parties refused to carry out the contract. From Summit to Robey street, Sections G to O inclusive were put under contract in the fall of 1893 and spring of 1894, and the work on these sections is progressing very satisfactorily. Section 15, the last on the line, was contracted for about three months ago.

With all the difficulties and delays that have been encountered by reason of our being obliged to relet and assign a number of sections, all within an average time of hardly two years, I think it should be gratifying to you all to note the present stage of the work.

We have paid out up to November 1, 1894, the sum of \$6,079,259.94 for construction, over one-third of the amount of our contract requirements, and this showing has been made in the face of all the unavoidable difficulties that had to be met, as heretofore mentioned. We can, therefore, judging the future by the past, look forward with confidence to seeing this great work become an accomplished fact by the end of 1896, although indeed, before the end of 1895, most of the rock sections will be finished.

The situation, however, does not preclude all difficulties. Some of the glacial drift sections are behind the average requirements. The results on these sections in the near future will undoubtedly guide the action of your Honorable Body.

The Sanitary District owns 6,284.38 acres of land, with perhaps 500 acres to be added, a large portion of which is already in suit, which will complete all the land purchases; 1,480 acres are required for the Main Drainage Channel, River Diversion, levees, highway crossings, and such other works as are essential to bring about the full usefulness of the Main Channel and River Diversion. That will leave, approximately, 5,200 acres of land, but this land cannot be put to any use by which an income from rental can be derived, except it be from Robey street to Corwith, about  $2\frac{1}{2}$  miles, and a few places below Summit, where the banks are unin-



cumbered with spoil. It will take an average time of four years to excavate the material and place it on the banks. How much time will be required to remove the same, is a question.

The contracts for removing the material from the Channel amount to, approximately, \$18,500,000. It is true that a large deduction must be made, as for material put in levees, embankments, retaining walls, etc., but this reduction will not exceed twenty per cent on the \$18,500,000. I cite these conditions to your Honorable Body for reflection as to what amount of revenue, if any, can be expected in the near future. The District may be able to realize something on the broken stone from its Channel.

Since my last annual message, the Sanitary District issued and sold at a small premium, six million dollars of five per cent interest-bearing United States currency bonds. In this connection, it may be said that the security for these bonds does not rest on the success of the Drainage Channel, though there cannot be the least doubt of its success, but their payment is secured by all the property in the Sanitary District of Chicago.

The total revenue derived from date of organization to November 1, 1894, is \$12,673,718.69, as follows;

Tax levy 1890, collected.	\$ 957,260 78
Tax levy 1891, collected.	1,022,349 75
Tax levy 1892, collected.	1,167 097 26
Tax levy 1893, collected (balance of about \$100,000 in process of collection).....	1,051,169 80
Total tax levy....	\$ 4,197,877 59
Total amount of 5 per cent bonds issued to date.....	8,000,000 00
Bond premium and interest.....	127,939 34
Loans.....	100,000 00
Interest on funds deposited in banks, and sundry receipts on various accounts.....	247,901 76
Total income to November 1, 1894.....	\$12,673,718 69

The total expenditures for the entire work, from its inception to November 1, 1894, were \$10,193,130.69, as follows:

Engineering Department.....	\$ 570,720 00
Engineering Department (Construction Account).....	6,159,301 54
Clerical Department.....	38,567 64

Treasury Department.....	\$ 5,882 49
Interest on loans.....	2,163 52
Loans.....	100,000 00
Law Department.....	174,836 44
Law Department (Land Account).....	2,405,335 06
General account.....	202,981 26
Bond account.....	100,000 00
Bond interest and premium account.....	370,000 00
Police Department.....	63,342 74
Total.....	\$ 10,193,130 69
Cash on hand November 1, 1894....	\$ 2,480,588 00
Total.....	\$ 12,673,718 69

Within the next thirty days a full estimate of the cost for controlling works, tail race, regulating construction through Joliet, bridges, executive departments, etc., will be in your hands, and, adding to that your present contract obligations, right of way and some possible contingencies, you will have a sum total amounting to close upon \$27,000,000.

The question of swing or fixed bridges has received some attention from your Board. While the issue was not made directly, yet the vote that was had would warrant the settlement in favor of fixed bridges until such time as the improvement of the Illinois River shall call for through navigation. The sanitary condition, while not in the least alarming, is such that the necessity for its improvement by letting the water through the channel at the earliest possible date, even if it be at the expense of every other project, appeals to the good common sense of every person. It is of immediate concern to two millions of people. The commercial advantages lie in the future development of the Illinois Valley in connection with our Channel, and whatever has been done by your Board in the past, has not in the least militated against such future development.

As per report of November 1st, from the Superintendent of Construction, there were 6,179 men employed on the works of the District. It is gratifying to note that during last summer, while strikes and a general unrest existed, not the least disturbance took place on the Drainage Channel.

It may be said, also, in this connection, that during the winter and early spring of 1894, when thousands of men sought work and contractors could hire men at their own terms, your Board pursued a wise course when it passed a resolution wherein

the sentiment is expressed that common labor shall not be paid less than 15 cents per hour. While the Board cannot set the scale of wages, yet the sentiment expressed was one of reason and justice, and was accordingly acceded to.

The Trustees have never been unmindful of the sanitary requirements in the camps on the various sections of the Channel. Before actual construction was fairly begun, rules were adopted to secure and maintain a good sanitary condition, and thereby avoid all epidemics. That your Board was successful is best substantiated by the fact that within the past two years very little sickness has existed. Last winter, when the first traces of small-pox were noticed, every person on the entire line of the work was vaccinated, and but few cases of the dread disease were found thereafter. Each contractor is supposed to take care of or at least provide a place to which the injured and sick are taken. A number of conferences were had after the awards of the contracts, and the outcome was that the sick and injured should be cared for by the contractors on whose sections accidents might occur.

On November 1, 1894, 201 men were in the direct employ of the Sanitary District, and were charged to the following departments:

Engineering Department.....	142
Clerical Department.....	4
Law Department.....	7
Treasury Department.....	1
Police Department.....	47
Total employees.....	201

The various departments are well organized, and a rigid discipline is enforced. The small number of men employed to supervise a work of this kind bears out the above assertion. Men are not employed by this District except their services are absolutely required, and I wish to compliment the executive officers for their zeal in carrying out the will of the Board. The heads of departments will shortly present to you their annual reports, giving in detail the work of their respective departments, so that a more detailed reference thereto at this time is unnecessary.

As a public body you have accomplished a wonderful feat. I need not hesitate for a moment to challenge comparison with any municipal body in the United States.

What is the secret of the success of this Board? Three years ago, when the present Board was organized, it had not any too many friends, and those it did have were somewhat pessimistic as to its ultimate success. Realizing these conditions, it required more than ordinary courage to start the enterprise, the failure of which would bring condemnation by the many thousands who always exclaim, "I told you so."

Certain rules and principles were adopted which proved to be a golden guide for this Board, namely "the exclusion of rank partisanship, and the strict adherence to business methods."

With these rules laid down, questions were discussed and solved on their merits, and I hope for the welfare of this enterprise that this policy will be pursued in the future.

But eleven months more, and your stewardship for this great work will have expired, and whatever service you may have rendered from the time of the inauguration of the work to its well-nigh completion must be credited to you all.

As it takes more than one stone to build an arch, so it took more than one intellect to plan and execute this work. The great rock cut, as finished, reveals its true magnitude, and a picture is presented that will live in centuries to come.

The White City on the lake added fame to Chicago's fair name. This mighty Channel will not only add lustre to its many achievements, and open great possibilities for a commercial waterway, but above all it will solve a burning question, without which the city's future and growth might well be brought to a sudden halt.

Thanking you sincerely for the many courtesies extended during the past year, this message is

Respectfully submitted,  
(Signed) FRANK WENTER,  
*President.*"

On the completion of the reading of the President's message, President Wenter called Mr. Eckhart to the chair.

#### ELECTION OF PRESIDENT.

The Chairman then announced that the election of a President of the Board of Trustees was then in order.

Mr. Boldenweck, seconded by Messrs. Gilmore and Russell, moved that Mr. Frank Wenter be elected President of the Board of Trustees for the ensuing year, by acclamation.

The motion prevailed unanimously.

Upon which result the Chairman declared Mr. Frank Wenter duly elected President of the Board of Trustees of the Sanitary District of Chicago for the ensuing year.

Mr. Wenter then thanked the members of the Board.

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Boldenweck, the fifth annual meeting of the Board of Trustees of the Sanitary District of Chicago then adjourned.

THOS. F. JUDGE,

*Clerk.*







# PROCEEDINGS

—OF THE—

## BOARD OF TRUSTEES

—OF THE—

### SANITARY DISTRICT OF CHICAGO.

DECEMBER 5, 1894.

#### OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

#### REGULAR MEETING.

The two hundred and fiftieth regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, December 5, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8) members, were present.

#### MINUTES.

The minutes of the regular meeting held November 28, 1894, were approved

as printed, on motion of Mr. Boldenweck, seconded by Mr. Russell.

#### VOUCHERS.

The Clerk presented the following vouchers:

#### PAY ROLLS.

Eng. Dept., Chief Engineer's roll, (Nov., 1894).....	\$ 500 00
Eng. Dept., Div. No. 1, (November, 1894)....	9,031 76
Eng. Dept., Div. No. 1, Tow-path roll (November, 1894).....	231 00
Eng. Dept., Div. No. 2, (November, 1894)....	2,584 80
Eng. Dept., Div. No. 3, (November, 1894)....	2,129 50
Eng. Dept., Div. No. 4, (November, 1894)....	222 50
Eng. Dept., Discharged men's roll (November, 1894).....	5 00
	\$14,704 56



Clerical Dept., Clerk's roll, (November, 1894)	\$ 891 67
Law Dept., Attorney's roll, (November, 1894)	\$1,204 66
Law Dept., Joliet roll, (November, 1894).....	458 33
	\$ 1,662 99
Treasury Dept., Treasurer's roll, (November, 1894).....	166 67
General Account, General roll, (Nov., 1894).	\$ 235 00
General Account, Trustees' roll, (November, 1894).....	2,333 34
	\$ 2,568 34
Police Dept., Marshal's roll, (November, 1894).....	\$ 3,871 65
Total.....	\$23,865 88

## ENGINEERING DEPARTMENT.

*Construction Account—*

Griffiths & McDermott (Sec. 1, Dec. 1, 1894)...	\$ 8 6 6 95
McArthur Bros. (Sec. 2, Dec. 1, 1894).....	14,544 25
Gilman & Co. (Sec. 3, Dec. 1, 1894).....	16,127 51
McArthur Bros. (Sec. 4, Dec. 1, 1894).....	13,948 63
The Qualey Construction Co. (Sec. 5, Dec. 1, 1894).....	1,485 75
Mason, Hoge & Co. (Sec. 6, Dec. 1, 1894)...	8,344 88
Mason, Hoge & Co. (Sec. 7, Dec. 1, 1894)	6,866 93
Mason, Hoge, King & Co. (Sec. 8, Dec. 1, 1894).....	18,057 81
Halvorson, Richards & Co. (Sec. 9, Dec. 1, 1894).....	20,051 68
E. D. Smith & Co. (Sec. 10, Dec. 1, 1894).....	17,933 13
Mason, Hoge & Co. (Sec. 11, Dec. 1, 1894)	8,806 66
Mason, Hoge & Co. (Sec. 12, Dec. 1, 1894)...	11,649 75
Mason, Hoge & Co. (Sec. 13, Dec. 1, 1894)	11,119 06
Smith & Eastman (Sec. 14, Dec. 1, 1894).....	15,617 00
Wright, Meysenburg, Sinclair & Carry (Sec. 15, Dec. 1, 1894).....	1,765 75
Heldmaier & Neu (Sec. B, Dec. 1, 1894).....	3,965 69
Western Dredging & Improvement Co. (Sec. C, Dec. 1, 1894)...	11,915 15
E. D. Smith & Co. (Sec. D, Dec. 1, 1894).....	273 19
Angus & Gindele (Sec. E, Dec. 1, 1894).....	2,672 22
Gahan & Byrne (Sec. G, Dec. 1, 1894).....	6,284 74
Gahan & Byrne (Sec. H, Dec. 1, 1894).....	2,324 35
Christie & Lowe (Sec. I, Dec. 1, 1894).....	11,180 31

Christie & Lowe, (Sec. K, Dec. 1, 1894).....	\$ 3,952 81
The Heidenreich Co. (Sec. L, Dec. 1, 1894)...	4,102 53
The Heidenreich Co. (Sec. M, Dec. 1, 1894)...	3,575 35
Hayes Bros., et al., (Sec. N, Dec. 1, 1894)...	434 70
McMahon & Montgomery Co., et al., (Sec. O, Dec. 1, 1894)...	3,307 50
Conley Bros. (Sec. 1, extra work—construction of dyke at Columbia Park, Nov. 16, 1894).....	150 00
Mason, Hoge & Co. (Sec. 5, extra—special work—retaining embankment and repairing levee, Dec. 1, 1894)	1,245 00
Mason, Hoge, King & Co. (Sec. 8, extra work—dimension stone, Dec. 1, 1894)...	1,363 00
E. D. Smith & Co. (Western Stone Co. bridge, final, March 13, 1894).....	120 92
Heldmaier & Neu (Sec. A, extra work, completing levee, 692-710 and below 710, Dec. 1, 1894).....	980 10
Lindon W. Bates (Sec. A, extra work, removal of River Diversion muck, Dec. 1, 1894).....	6,257 83
	\$238,621 19

## ENGINEERING DEPARTMENT.

F. Mayer & Co. (blue prints).....	\$ 369 16
Chicago Photo Engraving Co. (engraving maps).....	131 90
Chicago Blue Print Paper Co. (paper).....	1 08
R. R. Donnelly & Sons Co. (printing maps)	6 00
W. A. Olmsted, (mounting maps).....	5 00
Rand, McNally & Co. (mounting maps).....	7 00
Seelig & Kandler, (repairing level).....	15 05
Chicago Wholesale Picture Co. (frames)....	9 00
Geneva Optical Co., (photo sundries)....	33 97
Geneva Optical Co., (photo sundries)....	22 03
Robt. W. Hunt & Co. (cement scale).....	18 30
Hibbard, Spencer, Bartlett & Co. (hardware)	15 75
Marshall Field & Co., (window shades)....	7 68
Fuller & Fuller Co. (sundries).....	7 97
Standard Oil Co. (kerosene).....	4 37

Henry Gebhardt (moving map rack).....	\$ 8 85	
Waukesha Hygeia Mineral Springs Co. (water).....	15 00	
C. S. Austin (ice).....	9 00	
Chicago Towel Supply Co. (towel).....	5 40	
John McCaffery (rent, Brighton Park, Nov., 1894).....	25 00	
John T. Allison (rent, Summit, Nov., 1894).....	20 00	
J. M. Abbitt (rent, Willow Springs, Nov., 1894).....	20 00	
H. S. Norton (rent, Lemont, Nov., 1894).....	18 00	
W. M. Patton (expert services on bridge bids).....	350 00	
J. H. Spengler, (expense).....	7 69	
U. W. Weston (traveling and expense)....	23 50	
Wm. Trinkaus (traveling and expense)....	5 16	
J. H. Spengler (traveling and expense)....	3 40	
A. C. Schrader, (traveling and expense)....	6 30	
Alex. E. Kastl, (traveling and expense) ..	20 62	
Hiram A. Miller, (traveling and expense) ..	14 24	
Geo. H. Cook (traveling and expense)....	12 91	
		\$1,219 33

## CLERICAL DEPARTMENT.

Warner's Towel Supply (towel).....	\$ 1 50	
C. S. Austin (ice).....	3 00	
Waukesha Hygeia Mineral Springs Co. (water).....	3 75	
		\$ 8 25

## LAW DEPARTMENT.

Orrin N. Carter (legal services, Nov., 1894) ..	\$ 350 00	
Jos. Donnersberger, (right of way services, Nov., 1894)....	300 00	
Murray J. Brady (stenographer).....	21 50	
Warner's Towel Supply (towel).....	1 50	
C. S. Austin (ice).....	3 00	
Geo. E. Dawson, (expense).....	14 00	
Geo. E. Dawson, (expense, test pit, Sanger land).....	347 20	
		\$1,087 20

## GENERAL ACCOUNT.

Chicago Edison Co., (electric lighting)....	\$ 71 45	
Chicago Telephone Co., (telephone service, Oct., 1894, to Jan., 1895).....	732 92	
		\$804 37

## POLICE DEPARTMENT.

A. F. Risser & Co. (blankets).....	\$15 90	
Standard Oil Co. (kerosene).....	25 33	
		\$41 23
Grand total.....		\$265 597 45

Mr. Russell, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly (*except as to W. M. Patton voucher for \$350.00*), Prendergast (*except as to W. M. Patton voucher for \$350.00*), Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisitions:

No. 515, Engineering Department (planimeter).....	\$ 33 00
No. 516, Engineering Department (furniture).....	10 35
Total.....	\$ 43 35

Mr. Boldenweck, seconded by Mr. Russell, moved that Requisitions Nos. 515 and 516, for the Engineering Department, as read and shown above, be referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and Requisitions Nos. 515 and 516, for the Engineering Department, as read and shown above, were so referred.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending December 1, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, Dec. 5, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—I beg leave to report here-

with the number of employes in each department for the week ending December 1, 1894, as the same have been reported to me:

Engineering Department.....	140
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	48

Total employes..... 201

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

#### MONTHLY REPORT FROM TREASURY DEPARTMENT.

The Clerk presented a report from the Treasury Department for the month of November, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

#### THE REPORT :

"Balance on hand at date of last report.....	\$2,653,588.44
Received from Thos. F. Judge, Clerk, General Account—Rent.....	\$ 150.00
Received from Thos. F. Judge, Clerk, General Account — Telephone Service.....	1,100.00
Received from County Treasurer, tax account, 1893.....	97,437.41
Received from Thos. F. Judge, Clerk, Law Department (Emergency Fund).....	1,515.00
Received from Ft. Dearborn National Bank, interest for November	766.24
Received from National Bank of Illinois, interest for November....	666.24
Received from Metropolitan National Bank, interest for November	729.53
Received from Chicago National Bank, interest for November....	718.80
Received from American Trust and Savings Bank, interest for November.....	34.51
Received from Globe National Bank, interest for November....	824.97
	<u>\$103,942.70</u>
Total cash received for month.....	\$2,757,531.14

Total cash disbursed during month as per annexed schedules, viz:

Clerical Department....	\$ 901.17
Treasury Department..	186.56
Engineering Department..	15,831.42
Engineering—Construction Department.....	498,836.03
Law Department.....	2,359.79
Law Department—Land Account.....	745.46
General Account.....	7,189.78
Police Department.....	755.06
Bond Interest and Premium Account.....	147,500.00
	<u>\$674,305.27</u>

Balance this date, in banks as per schedule endorsed hereon .... \$2,083,225.87

(Signed) MELVILLE E. STONE,  
Treasurer.

CHICAGO, Dec. 3, 1894."

#### SCHEDULE :

Fort Dearborn National Bank.....	\$351,122.08
National Bank of Illinois.....	401,962.61
Chicago National Bank.....	400,638.08
Metropolitan National Bank.....	353,859.95
American Trust and Savings Bank.	21,003.79
Globe National Bank.....	554,639.36
Total.....	<u>\$2,083,225.87</u>

#### REPORT ON CONDITION OF TRESTLE ON SECTION 1.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a communication from Griffiths & McDermott, concerning the condition of the trestle on Section 1, claimed to be due to hydraulic work, presented and referred to that Committee at the meeting held Nov. 28, 1894, (page 2327 of the Proceedings); and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and, with enclosure, placed on file.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file.

The following is

#### THE REPORT :

"CHICAGO, Dec. 5, 1894.

To the Honorable the Board of Trustees of the Sanitary District of Chicago:

GENTLEMEN—The Committee has con-



sidered the communication of Griffiths & McDermott, referred at the meeting held November 28, 1894, (page 2327 of the Proceedings). This firm professes to be apprehensive that the trestle adjacent to the River Diversion will collapse unless the operations of the hydraulic dredge are stopped.

It appears from their contract that this trestle is to be maintained by Griffiths & McDermott. The work of clearing out the river is necessary, and this work has been so prosecuted as to decrease the danger to the trestle rather than to increase it. It is also essential that the river work be completed before the river is closed by ice. So far as the hydraulic dredging is concerned, it appears further that the work is now done and the dredge removed.

It does not appear that any action can be taken nor that there has been any occasion therefor at any time, and your Committee regard the attitude of Griffiths & McDermott as ill-advised.

The communication is returned herewith for filing.

Respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.  
B. A. ECKHART,  
WM. BOLDENWECK,  
W. H. RUSSELL,  
THOMAS KELLY,

*Joint Committee on Engineering and Finance."*

(One enclosure.)

REPORT ON ADDITIONAL APPROPRIATION  
FOR COMPLETION OF TOPOGRAPHICAL  
MAP OF DISTRICT.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by a report from the Chief Engineer, asking an additional appropriation of \$600 to be expended on survey for the completion of the topographical map of the District, presented and referred to that Committee at the meeting held November 28, 1894, (page 2325 of the Proceedings)—recommending that said additional appropriation be allowed; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Prendergast, Russell and Wenter—seven (7). Nays—Mr. Kelly—one (1).

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, and the recommendations made in the report concurred in.

The following is

THE REPORT:

"CHICAGO, Dec. 5, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In the matter of the communication of the Chief Engineer, in regard to certain field work required in order to complete a topographical map of the Sanitary District and vicinity, referred at the meeting held November 23, 1894, (page 2325 of the Proceedings) your Committee reports as follows:

The compilation of this map was directed in 1892. Existing data has been available in large part, but that having been exhausted, certain field work was required to complete the same, for which an appropriation of \$1,000 was authorized in August last. This work has been fragmentary and in sections remote from each other, and it is now found that an additional sum of \$600 is required.

Your Committee regards the map in a broad sense as a public necessity, and in view of the expenditure already made, we recommend that the additional sum of \$600 be allowed, to complete the necessary field work.

The communication of the Chief Engineer is returned herewith for filing.

Respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.  
WM. BOLDENWECK,  
W. H. RUSSELL,  
B. A. ECKHART,

*Joint Committee on Engineering and Finance."*

(One enclosure.)

REPORT ON DELINQUENCY OF WORK ON  
SECTION F. AND ORDER FOR RESUMPTION OF WORK.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to

and accompanied by a report from the Chief Engineer and Attorney, concerning the condition and the delinquency of the work on Section F, and also accompanied by order, directing the Clerk to notify Ricker, Lee & Co. to resume work on said Section F within ten days, under conditions as provided in the order; and the report and accompanying order were read.

Mr. Boldenweck, seconded by Mr. Kelly, moved that the report be adopted, ordered printed, and, with enclosure, placed on file, the recommendations made in the report concurred in, and the accompanying order adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—seven (7). Excused and not voting—Mr. Cooley—one (1). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file, the recommendations made in the report concurred in, the accompanying order adopted, and the Clerk directed to notify Ricker, Lee & Co., as provided therein.

The following is

THE REPORT AND ACCOMPANYING ORDER:

“CHICAGO, Dec. 5, 1894.

*To the Honorable Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Committee to whom was referred the communication of the Engineer and Attorney in regard to the cessation of work upon Section F, have considered the matter and report that, in their opinion, Ricker, Lee & Co. should be notified to resume work at once upon said section and in default of so doing should be considered as having abandoned the work thereon and the District should proceed to have said work completed at their expense.

An order has been prepared, a copy of which is herewith submitted, which the Committee recommend to your Honorable Body for adoption.

The letter referred to us is also returned herewith for filing.

Respectfully submitted,

(Signed)

THOMAS KELLY,

WM. BOLDENWECK,

W. H. RUSSELL,

B. A. ECKHART,

*Joint Committee on Engineering and Finance.”*

(Accompanied by report and order.)

The following is

THE ORDER:

“Ordered, That the Clerk of the District be and he is hereby directed to serve notice upon Ricker, Lee & Co., Contractors for Section F, that unless they resume work under their contract within ten (10) days from the time of the service of said notice they will be considered as having abandoned the work thereunder, and that the District will proceed to have said work completed as provided in said contract and charge the cost thereof to said Ricker, Lee & Co. in accordance with the provisions of said contract.”

REQUEST FROM NAVY DEPARTMENT FOR MAPS, ETC.

The Clerk presented a communication from Lieut. Geo. P. Blow, of the Bureau of Navigation, U. S. Navy, requesting certain information, data, etc., additional to that furnished at the meeting held March 28, 1894, (page 1842 of the Proceedings); and the communication was read.

Mr. Eckhart, seconded by Mr. Gilmore, moved that the communication be ordered printed and placed on file, and the request made therein granted, at the expense of the District.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the communication ordered printed and placed on file, and the request made therein granted, at the expense of the District.

The following is

THE COMMUNICATION:

“CHICAGO, Ill., Nov. 30, 1894.

*Trustees of Sanitary District of Chicago, 5th Floor, Rialto Building, Chicago, Illinois:*

GENTLEMEN—I have the honor to request that this office may be supplied with duplicate copies of such drawings, plans, blue prints, charts and printed data as may have been prepared since you so kindly furnished similar information nearly a year ago.

The request is made for duplicates so that one set of copies may be retained in this office, while the other is forwarded



to the Navy Department in Washington,  
D. C.

Very respectfully,

(Signed) GEO. P. BLOW,  
*Lieutenant U. S. Navy, in charge.*"

#### APPOINTMENT OF COMMITTEES 1894—1895.

The President then announced the following Committees of the Board for 1894—1895, being the reappointment of the Committees for the previous year;

##### *Judiciary.*

Mr. Kelly, Chairman, and Messrs. Boldenweck and Altpeter.

##### *Finance.*

Mr. Eckhart, Chairman, and Messrs. Russell and Kelly.

##### *Rules.*

The President of the Board, Chairman, and Messrs. Russell and Eckhart.

##### *Engineering.*

Mr. Cooley, Chairman, and Messrs. Kelly, Boldenweck, Altpeter and Russell.

##### *Health and Public Order.*

Mr. Gilmore, Chairman, and Messrs. Altpeter and Prendergast.

##### *Federal Relations.*

Mr. Boldenweck, Chairman, and Messrs. Cooley, Altpeter, Prendergast and Gilmore.

##### *Labor.*

Mr. Altpeter, Chairman, and Messrs. Kelly and Eckhart.

#### CONTRACTORS TO BE NOTIFIED TO PROTECT WORK FROM FLOODS.

Mr. Eckhart presented an order, directing the Clerk to notify contractors on each section of the Main Channel to take the necessary precautions for the protection of their work against floods from the river or adjoining sections, under conditions as set forth in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Kelly, moved the adoption of the order.

On roll-call the vote stood; Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—none.

Upon which result the President declared the motion carried, the order adopted, and the Clerk directed to notify contractors on each section as provided in the order.

The following is

#### THE ORDER:

"WHEREAS, The contracts entered into by this District for the excavation of the several sections of the Main Drainage Channel each provide that the "contractor shall build at his own cost and expense, all or any levees which may be necessary to protect the work provided for in the contract, during the progress of the same. And should flooding occur either before or after the building of any such levees, any and all expenses and damages to which he may be put shall be borne by the said contractor", and

WHEREAS, The season is approaching when high water in the Desplaines Valley may be expected at any time, therefore, be it

*Ordered*, That the Clerk be directed to call the attention of each of the contractors to the aforesaid contract provision, and to notify each of same that this District in the building by it of the River Diversion Levee or of any other levees, has not thereby waived any of its rights under said provision of the contract, and that if any of said contractors relies, for the protection of his work, upon any levee built by, or under the direction of this District, he does so at his own risk of its sufficiency, for that purpose and must also, so far as this District is concerned, take whatsoever precautions he may deem necessary to prevent his section from being flooded from adjoining sections."

#### REPORT ON ORGANIZATION OF ENGINEERING DEPARTMENT.

Mr. Eckhart presented an order, directing the Joint Committee on Engineering and Finance to consider and report to the Board recommendations with reference to the organization of the Engineering Department of the District, as set forth in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Kelly, moved the adoption of the order.

The motion prevailed unanimously, and the President declared the order adopted and the Joint Committee on Engineering and Finance directed, as provided therein.

The following is

#### THE ORDER:

"*Ordered*, That the Joint Committee on Engineering and Finance consider whether, in the interests of economy and efficiency any change in the organization



of, or reduction in, the number of men employed in the Engineering Department of this District be deemed advisable, and that it report back to this Board before the end of the month, its conclusions thereon, with any recommendations it may deem desirable to make."

## ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Eckhart, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

DECEMBER 12, 1894.

**OFFICIAL RECORD.**

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

**REGULAR MEETING.**

The two hundred and fifty-first regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, December 12, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8) members, were present.

**MINUTES.**

The minutes of the fifth annual meeting held December 4, 1894, and of the

regular meeting held December 5, 1894, were approved as printed, on motion of Mr. Boldenweck, seconded by Mr. Russell.

**VOUCHERS.**

The Clerk presented the following vouchers:

**ENGINEERING DEPARTMENT.**

*Construction Account—*

E. D. Smith & Co. (Sec. 8, Stephens street and Santa Fe bridges, Nov. 5, 1894, <i>final</i> )..	\$ 365 47
E. D. Smith & Co. (Sec. 10, extra work—re- pair of levee, Dec. 1, 1894, <i>final</i> ).....	500 00
	\$ 865 47

**ENGINEERING DEPARTMENT.**

O. W. Moon (rent, Lockport, Nov., 1894)	\$ 20 00
Chas. L. Harrison. (traveling) .....	14 60

W. T. Keating (traveling).....	\$ 13 48	
Stephenson & Keller (livery).....	16 00	
		\$ 64 08

## GENERAL ACCOUNT.

John F. Higgins (printing proceedings, etc., Nov., 1894).....	\$ 195 85	
Stephenson & Keller (livery).....	3 00	
		\$ 198 85

## POLICE DEPARTMENT.

M. Freytag (robes)....	\$ 12 50	
John Larney (horse feed).....	34 82	
Daniel E. Tracy (horse shoeing).....	8 60	
		\$ 55 92
Grand total.....		\$1,184 32

Mr. Kelly, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## REQUISITIONS.

The Clerk presented the following requisition:

No. 517, Engineering Department, (stakes).....	\$ 70 00
--	----------

Mr. Cooley, seconded by Mr. Russell, moved that Requisition No. 517, for the Engineering Department, as read and shown above, be allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, and Requisition No. 517, for the Engineering Department, as read and shown above, allowed.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending December 8, 1894.

The same was read, and, by unanimous

consent, was ordered printed and placed on file.

The following is

## THE REPORT:

“CHICAGO, Dec. 12, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employes in each department for the week ending December 8, 1894, as the same have been reported to me:

Engineering Department.....	142
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	47

Total employes..... 202

Respectfully submitted,

(Signed) THOS. F. JUDGE,

*Clerk.”*

## PERMISSION TO SPOIL WITHIN CONTRACT LIMITS ON SECTION 5.

The Clerk presented a report from the Chief Engineer, recommending that authority be given The Qualey Construction Company, Contractors for Section 5, to waste material within the 400 foot limit provided by contract on that section, under the direction of the Chief Engineer, as provided in the report; and the report was read.

Mr. Kelly, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, the recommendation made therein concurred in, and permission granted The Qualey Construction Company to waste material, as provided in the report.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendation made therein concurred in, and permission granted The Qualey Construction Company to waste material, as provided in the report.

The following is

## THE REPORT:

“CHICAGO, Dec. 10, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—On the 24th of November,



several of your Honorable Body went with the Superintendent of Construction and myself to examine Section 5, and see whether you would allow the contractors for that section (The Qualey Construction Company) to waste material within the 400 foot limit which was exempt from spoil in the revised contract for that Section, dated April 4th. After examination was made you authorized the Chief Engineer to permit the said wasting to be done, and instructed him to bring this matter to the attention of the Board. I find that, while I gave permission for the wasting to be done, I failed to make any communication to the Board with regard to it. I therefore ask you now to confirm the authority given at that time, for wasting within the limits which were reserved in the contract, subject to the direction and control of the Chief Engineer.

Respectfully submitted, I

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

REPORT ON SUBSTITUTION OF CEMENT  
MASONRY FOR DRY RUBBLE WALLS  
ON SECTIONS 8, 11, 12 and 13.

The Clerk presented a joint report from the Chief Engineer and Attorney, with reference to and accompanied by four (4) agreements in duplicate, with Mason, Hoge, King & Co., and Mason, Hoge & Co., Contractors for Sections 8, 11, 12 and 13 respectively, providing for the substitution of cement masonry walls in place of dry rubble walls on said Sections; and the report and accompanying agreements were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report and accompanying agreements be adopted, ordered printed and placed on file, and the President and Clerk authorized and directed to execute the said agreements, on behalf of the District.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report and accompanying agreements adopted, ordered printed and placed on file, and the President and Clerk authorized and directed to execute the said agreements, on behalf of the District.

The following is

THE REPORT:

"CHICAGO, Dec. 12, 1894.

To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:

GENTLEMEN—In accordance with your

instructions of May 29th last, (page 1974) we transmit herewith contract for cement masonry walls on Section 8, with the price fixed therein at \$3.25 per cubic yard. You are all familiar with the fact that Mason, Hoge & Co., on account of the extra difficulties and expense involved in building the walls in the mud pockets on Sections 11, 12 and 13, declined to build sand walls for a less compensation than \$3.50 per cubic yard.

On July 2nd, they sent us a letter withdrawing their proposition to do the work on the three last named sections for \$3.50 per cubic yard. This letter was laid before the Committee on Engineering and Finance, and, after being duly considered, we were told to try to close up the deal on the basis of \$3.50. Mason, Hoge & Co. have to-day signed contracts for the walls in the mud pockets on Sections 11, 12 and 13, on the basis of \$3.50 per cubic yard, and we transmit them herewith.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*

GEO. E. DAWSON,  
*Attorney."*

(Accompanied by four (4) agreements in duplicate.)

The following are

THE AGREEMENTS:

(Section 8.)

"*This agreement, Made this ..... day of ..... A. D. 1894, by and between the Sanitary District of Chicago, party of the first part, and Horatio P. Mason, Charles E. Hoge, John King and Harry B. Hanger, doing business under the firm name and style of Mason, Hoge, King & Co., party of the second part, witnesseth: that*

WHEREAS, The Sanitary District of Chicago did on the 18th day of July, A. D. 1892, enter into a contract with Francis Agnew, John P. Agnew and John McGillen, doing business under the firm name and style of Agnew & Co., for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of said first party's Main Drainage Channel, known as Section eight (8), together with the building of all collateral works which by the terms of said contract are included in same, which said contract was on the 17th day of January, A. D. 1894, duly assigned to the said Horatio P. Mason,

Charles E. Hoge, John King and Harry B. Hanger, doing business under the firm name and style of Mason, Hoge, King & Co., and which said contract, among other things, provides for the building of a large amount of dry rubble wall; and

WHEREAS, First party, in view of the greater solidity and permanence of the structure, has deemed it desirable to substitute for dry rubble walls, walls laid in cement, so far as possible throughout its several contract sections: now,

THEREFORE, In consideration of the premises and of the reciprocal promises herein made, the parties hereto agree as follows:

Second party agrees to construct from rock taken from said section a random wall laid in cement in lieu of the dry rubble wall specified in said contract, under the direction of the Chief Engineer of first party, and in accordance with the following specifications:

The preparations of the foundations of said cement wall shall conform to the requirements stipulated in said contract for dry rubble walls; sand to be coarse, clean and sharp, free from loam and pebbles.

**Cement**—The best American hydraulic cement shall be used, brand and quality to be subject to approval by the Chief Engineer, who shall from time to time cause such tests to be made as may seem to him proper for determining the quality of the cement which is shipped for use in the work. The development of tensile strength shall be 100 pounds per square inch, after having set seven days. Second party shall keep on hand a supply of cement equal to the average consumption in the work during a period of ten days, and it shall be protected against rain or dampness, and so stored as to make the procurement of samples for testing easy. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

**Mortar**—The mixture shall be of sand and cement in equal parts. The sand and cement shall be thoroughly incorporated with each other before water is added. All mortar used shall be freshly mixed in clean boxes. No hard or partially set mortar shall be used. Water for mixing shall be clean. In laying the wall care shall be taken to secure bond by proper use of headers and stretchers, so far as the stone available for the work will admit, but the wall shall be so thoroughly slushed with cement mortar as to insure the filling of all interstices and

the development of a monolithic mass, so soon as the mortar shall have set. Stone used shall be sound and clean.

The wall shall be pointed with the specified mortar throughout before acceptance; all joints shall be raked out to a depth equal to three times their width to receive pointing. Work on cement masonry walls to be begun after the period of freezing in the spring and to be suspended before freezing begins in the fall.

The walls shall conform to the dimensions specified in said contract and the faces of the wall shall conform to the batter there specified, the stones being generally bedded in planes approximately perpendicular to the faces.

Weeping holes shall be left in the walls every fifty feet at an elevation about two feet below datum. These holes shall not exceed thirty-six square inches of cross-section.

For said wall laid in cement as herein specified, second party shall receive three and twenty-five one-hundredths (\$3.25) dollars per cubic yard, measured in the wall.

*In witness whereof*, The Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereto affixed, and the said party of the second part have hereunto set their hands and seals the day and year first above mentioned," etc.

(Sections 11, 12 and 13.)

"*This Agreement*, Made and entered into this ..... day of ..... A. D. 1894, by and between the Sanitary District of Chicago, party of the first part, and Horatio P. Mason, Charles E. Hoge, Stephen P. Meyer, John King, William F. Dandridge, Dennis Shanahan, Dennis A. Shanahan, Cornelius M. Shanahan, and Harry B. Hanger, doing business under the firm name and style of Mason, Hoge & Company, in the City of Frankfort, County of Franklin, and State of Kentucky, witnesseth, that,

WHEREAS, The Sanitary District of Chicago did, on the 12th day of July, A. D. 1892, enter into a contract for the complete excavation and entire removal of earth, rock, glacial drift and other material from that portion of first party's Main Drainage Channel known as Section. ...., together with the building of all collateral works which, by the terms of said contract, are included in



same, which said contract among other things provides for the building of a large amount of dry rubble wall; and

WHEREAS, First party, in view of the great solidity and permanence of the structure, has deemed it desirable to substitute for dry rubble walls, walls laid in cement, so far as possible throughout its several contract sections; now,

THEREFORE, In consideration of the premises and of the reciprocal promises herein made the parties hereto agree as follows:

Second party agrees to construct from rock taken from said section a random wall laid in cement in lieu of the dry rubble wall specified in said contract, under the direction of the Chief Engineer of first party and in accordance with the following specifications.

The preparations of the foundations of said cement wall shall conform to the requirements stipulated in said contract for dry rubble walls; sand to be coarse, clean and sharp, free from loam and pebbles.

*Cement*—The best American hydraulic cement shall be used, brand and quality to be subject to approval by the Chief Engineer, who shall from time to time cause such tests to be made as may seem to him proper for determining the quality of the cement which is shipped for use in the work. The development of tensile strength shall be one hundred (100) pounds per square inch, after having set seven days. Second party shall keep on hand a supply of cement equal to the average consumption in the work during a period of ten days, and it shall be protected against rain or dampness, and so stored as to make the procurement of samples for testing easy. All lumpy, dirty or damaged cement shall be rejected; also damaged or short weight packages.

*Mortar*—The mixture shall be of sand and cement in equal parts. The sand and cement shall be thoroughly incorporated with each other before water is added. All mortar used shall be freshly mixed in clean boxes. No hard or partially set mortar shall be used. Water for mixing shall be clean. In laying the wall, care shall be taken to secure bond by proper use of headers and stretchers, so far as the stone available for the work will admit, but the wall shall be so thoroughly slushed with cement mortar as to insure the filling of all interstices, and the development of a monolithic mass, so soon as the mortar shall have set. Stone used shall be sound and clean.

The wall shall be pointed with the specified mortar throughout before acceptance; all joints shall be raked out to a depth equal to three times their width to receive pointing. Work on cement masonry walls to be begun after the period of freezing in the spring, and to be suspended before freezing begins in the fall.

The walls shall conform to the dimensions specified in said contract, and the faces of the wall shall conform to the batter there specified, the stones being generally bedded in planes, approximately perpendicular to the faces.

Weeping holes shall be left in the walls every fifty (50) feet at an elevation about two (2) feet below datum. These holes shall not exceed thirty-six (36) square inches of cross section.

For said wall laid in cement, as herein specified, second party shall receive three and fifty one-hundredths (\$3.50) dollars per cubic yard, measured in the wall.

*In witness whereof*, The Sanitary District of Chicago has caused this agreement to be signed by its President and attested by its Clerk, and its corporate seal to be hereunto affixed, and the said party of the second part have hereunto set their hands and seals the day and year first above mentioned," etc.

#### REPORT ON REQUISITIONS NOS. 515 AND 516.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, with reference to and accompanied by Requisitions Nos. 515 and 516, for the Engineering Department, presented and referred to that Committee at the meeting held December 5, 1894, (page 2338 of the Proceedings), recommending that the same be allowed; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, the recommendation made therein concurred in, and the accompanying requisitions allowed.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, the recommendation made therein concurred in, and the accompanying requisitions allowed.



The following is

THE REPORT:

"CHICAGO, Dec. 12, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to Requisitions Nos. 515 and 516, for the Engineering Department, presented and referred to the Joint Committee on Engineering and Finance at the meeting held December 5, 1894, (page 2338 of the Proceedings), your Committee respectfully report that they have considered said requisitions, and return same herewith, with the recommendation that they be allowed.

Respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.  
THOMAS KELLY,  
WM. BOLDENWECK,  
W. H. RUSSELL,  
B. A. ECKHART,

*Joint Committee on Engineering and Finance."*

(Accompanied by two requisitions.)

ORDER FOR STIPULATION IN "LOUGHRAN" AND "ALLEN" SUITS.

Mr. Kelly presented an order, authorizing Messrs. Haley & O'Donnell, Attorneys of the District, to enter into a stipulation in the "Loughran" and "Allen" cases, in the Circuit Court of Will County, Illinois, for the construction of a bridge over the tail race channel, as provided in the order; and the order was read.

Mr. Kelly, seconded by Mr. Eckhart, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Prendergast, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and Attorneys Haley & O'Donnell authorized to enter into a stipulation as provided therein.

The following is

THE ORDER:

"Ordered, That Messrs. Haley & O'Donnell, the Attorneys of the District at Joliet, Illinois, be and they are hereby authorized to stipulate in the respective suits of the Sanitary District of Chicago vs. Michael Loughran, et al, No. 15006, and of said Sanitary District vs. Chester S. Allen, et al, No. 15007, in the Circuit

Court of Will County, Illinois, now being tried together, that said Sanitary District will construct a bridge over its tail race channel where same crosses the Lockport road, and will make said bridge and the approaches thereto of such width as to furnish accommodation to public travel, equivalent to that now enjoyed, and of such height as shall cause same to be above high water mark, as shown on the map offered in evidence in said suit, and designated as 'tail race plat'."

COMMITTEE ON RULES TO JOIN IN REPORT ON ORGANIZATION OF ENGINEERING DEPARTMENT.

Mr. Eckhart, seconded by Mr. Cooley, moved that the Committee on Rules join with the Joint Committee on Engineering and Finance to consider and report on the organization of the Engineering Department, as provided in the order passed at the meeting held December 5, 1894, (page 2342 of the Proceedings).

The motion prevailed unanimously, and it was so ordered.

REQUEST FOR LEVEE PROTECTION AT COLUMBIA PARK.

The Clerk presented a communication from the Columbia Park Company, by George W. Plummer, Attorney, requesting that levee protection be furnished the Park grounds, as suggested in the communication; and the communication was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the communication be ordered printed and referred to the Committee on Engineering.

Mr. Cooley, seconded by Mr. Boldenweck, moved as a substitute that the communication be ordered printed and referred to the Joint Committee on Judiciary and Finance.

On roll-call, on the substitute, the vote stood: Yeas—Messrs. Boldenweck, Cooley, Gilmore, Prendergast, Russell and Wenter—six (6). Nays—Messrs. Eckhart and Kelly—two (2).

Upon which result the President declared the substitute carried, and the communication ordered printed and referred to the Joint Committee on Judiciary and Finance.

The following is

THE COMMUNICATION:

"CHICAGO, Dec. 11, 1894.

*Sanitary District of Chicago:*

GENTLEMEN—We have on several oc-

casions called the attention of individual members of your Board, and of your President, and also Mr. Weston, your Superintendent, to the damage that will be done to Columbia Park by reason of the overflow of water from the river in case of floods or high water, since the embankment constructed by you on the other side of the river prevents the overflow in that direction.

We would request therefore that you take some means or measures to prevent this damage which is sure to occur in case of high water. We have suggested and would recommend that the low ground near the ice house and the river

be filled in and raised, so as to prevent the floods overflowing the park at that point, which is lower than elsewhere.

COLUMBIA PARK COMPANY;

By GEO. W. PLUMMER,

*Attorney."*

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

December 12,]

—2351—

[1894.



PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

DECEMBER 19, 1894.

OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and fifty-second regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, December 19, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7) members, were present.

MINUTES.

Mr. Boldenweck, seconded by Mr. Cooley, moved that the word "sand" in the

tenth line of the second column on page 2346 of the Proceedings of the regular meeting held December 12, 1894, be corrected to read "said."

The motion prevailed unanimously, and it was so ordered.

By unanimous consent, the minutes of the regular meeting held December 12, 1894, were then approved as printed and amended.

VOUCHERS.

The Clerk presented the following vouchers:

PAY ROLLS.

Eng. Dept., Div. No. 1, (Dec. 1 to 25, inclusive, 1894).....	\$7,681 81
Eng. Dept., Div. No. 2, (Dec. 1 to 25, inclusive, 1894).....	2,103 99

Eng. Dept., Div. No. 3, (Dec. 1 to 25, inclusive, 1894).....	\$ 1,751 61
Eng. Dept., Div. No. 4, (Dec. 1 to 25, inclusive, 1894).....	200 00
	<hr/>
Law Dept., Attorney's roll (Dec. 1 to 25, inclusive, 1894) .....	1,093 04
Police Dept., Marshal's roll (Dec. 1 to 25, inclusive, 1894)...	3,184 72
	<hr/>
Total.....	\$16,015 17

## ENGINEERING DEPARTMENT.

*Construction Account—*

Western Stone Co. (Sec. 9, trestle, Nov. 4, '94)	\$171 34
Halvorson, Richards & Co. (Sec. 9, trestle, Dec. 1, 1894, final)...	840 96
	<hr/>
	\$1,012 30

## ENGINEERING DEPARTMENT.

Geo. Brainard, (gauge reading, Nov., 1894)...	\$10 00
E. Hastings, (gauge reading, Nov., 1894)...	10 00
Wm. McGinnis, (gauge reading, Nov., 1894)...	10 00
Wm. Kirkham, (gauge reading, Nov., 1894)...	10 00
Mary Rusk, (gauge reading, Nov., 1894)...	10 00
U. W. Weston (traveling).....	12 00
	<hr/>
	\$62 00

## LAW DEPARTMENT.

Geo. E. Dawson, (expense).....	\$200 00
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## GENERAL ACCOUNT.

<i>The Railway Review</i> (advertising bridges and masonry).....	\$23 80
Sharp & Smith (vac-cine points).....	22 50
	<hr/>
	\$ 46 30
Grand total.....	<hr/>
	\$17 335 77

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending December 15, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

"CHICAGO, Dec. 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employees in each department for the week ending December 15, 1894, as the same have been reported to me:

Engineering Department.....	141
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	48

Total employees.....	<hr/>	202
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Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

## MONTHLY REPORT FROM CLERICAL DEPARTMENT.

The Clerk presented a report from the Clerical Department for the month of November, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

"CHICAGO, Dec. 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have the honor to herewith report that the total amount expended on account of and charged to the Clerical Department during the month of November, 1894, was \$4.50, as follows:

General expenses.....	<hr/>	\$4 50
-----------------------	-------	--------

There are no outstanding liabilities, and the expenses for the present month will, from present indications, be about \$950.

The total amount expended and

charged to the General Account during the month of November, 1894, was \$950.27 divided as follows:

Printing.....	\$128 17
Advertising.....	822 10
Total.....	<u>\$950 27</u>

There are no outstanding liabilities against the General Account, and the expenses for the present month will be about \$6,000.

During the month of November, 1894, there were warrants authorized and drawn against the various accounts for \$507,800.31, as follows:

Engineering Department.....	\$ 1,648 58
Clerical Department.....	4 50
Law Department.....	215 47
General Account.....	950 27
Engineering Department (Construction Account).....	502,413 36
Law Department (Land Account)	1,826 57
Police Department.....	741 56
Total.....	<u>\$507,800 31</u>

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
*Clerk.*

#### MONTHLY REPORT FROM ENGINEERING DEPARTMENT.

The Clerk presented a report from the Engineering Department (accompanied by classified statement) for the month of November, 1894.

The same was read, and, by unanimous consent, was ordered printed, and, with accompanying classified statement, placed on file.

The following is

#### THE REPORT:

"CHICAGO, Dec. 11, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I herewith transmit the reports of Divisions 1, 2 and 3, showing the detailed operations of the Engineering Department for the month of November.

The expenses for the month of November were as follows:

Pay rolls.....	\$ 14,704.56
Material, etc.....	697.48
Contractor's estimates.....	505,152.66
Total for November.....	<u>\$520,554.70</u>

I estimate the expenses of this Department for the month of December will be \$450,000.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*"  
(Accompanied by classified statement.)

"CHICAGO, Dec. 14, 1894.

*Isham Randolph, Esq. Chief Engineer:*

DEAR SIR—I herewith present my report of the work of construction for the month of November, together with the usual tabulated statements.

The weather has continued exceptionally favorable, considering the season of the year, and the rate of progress on most sections was well maintained. The total value of work done during the month is \$499,090.33, which is \$41,594.85 less than the average monthly requirement, being 92 3-10 per cent thereof.

Section F has been idle during the month; Section N practically so, and Sections E and 15 are not yet fairly under way. The requirements on these sections are all included in the above calculations, otherwise the result would show about 103 per cent, which is more than can be expected during the short days of the winter season.

Section O—Work has continued on this section principally with steam dredges between Robey street and Western avenue boulevard. Four dredges worked in the day time until the 27th, when one dredge was laid up for the winter. One dredge worked nights also until the 10th, after which date no night work was done. During the latter part of the month the dredges were mainly employed in finishing the bottom and slopes of the channel between the points above named. The total output of the dredges was 48,400 cubic yards in 105½ shifts of 10 hours each, which is equal to a daily average of about 460 cubic yards per day for each dredge. In addition to the above quantities, about 1,600 cubic yards were moved with teams and scrapers, making an aggregate of 50,000 cubic yards, equal to 79 per cent of the monthly rating.

*Collateral Channel*—Between the tenth and twentieth a spur track was laid from the Chicago, Madison and Northern Rail-



way, along the line of the collateral channel, between the main channel and the West Fork of the South Branch of the River, and the work of excavation commenced.

*Section N*—The same conditions exist upon this section as mentioned in former reports and but little work was done during the month. The amount of material excavated was 7,400 cubic yards (16 per cent), which was hauled away in railroad cars.

*Sections M and L*—Of the four steam shovels employed on these sections one was idle from the 2d to the 20th and another from the 22d to the 30th, so that only three shovels were in operation during the month. This was occasioned in the case of the former shovel in rebuilding and improving its incline (the first one they built), giving same greater clearance and capacity. The other shovel was laid up by reason of a breakage of a part of the hoisting engine which had to be replaced from the manufactory. Two of the shovels worked day and night shifts and one worked day shifts only.

The total output of the steam shovels on the two sections was 89,829 cubic yards, an average per shovel of 702 cubic yards per day for the time actually worked and 576 cubic yards for fair working days, the difference being accounted for by the unavoidable delays incident to such work. About 3,271 cubic yards were handled with dump cars, teams and scrapers, making the total quantities excavated 93,100 cubic yards, of which 47,300 were on Section M, equal to 164 per cent, and 45,800 on Section L, equal to 104 per cent, an average of about 130 per cent on both sections considered together.

*Sections K and I*—All excavation on these two sections was done with four steam shovels with truss conveyors, which worked both day and night shifts during the month, with the exception of incidental delays from time to time. These detentions aggregated  $12\frac{1}{2}$  shifts of 10 hours each for one shovel. The output on Section K was 33,000 cubic yards, equal to 72 per cent., and on Section I 90,100 cubic yards, equal to 198 per cent. This gives for both sections a total of 123,100 cubic yards, an average of about 135 per cent. of the monthly rating. The steam shovels worked  $21\frac{1}{2}$  shifts and averaged 582 yards

per shift of 10 hours; including the time lost by delays ( $12\frac{1}{2}$  shifts), during which work could have been done, and the average is 550 cubic yards per day.

*Sections H and G*—The Hoover & Mason conveyor continued in operation on Section H until about 4:20 P. M. on the 8th inst., when it met with a serious mishap, involving the complete destruction of the north arm of the conveyor (178 feet in length) and the partial dismemberment of the north end of the main truss spanning the Channel. The track and conveyor system were supported by cross timbers through each panel of the truss forming the arms of the apparatus. The one at the third panel was found to be defective, and until a new timber could be procured the defective one was sustained by a jack. At the time above stated the jack became loosened and fell, when the cross timber broke in two and permitted the heavily laden conveyor to sag to such an extent as to lock and render it immovable. The power was applied at the extreme ends of the arms, which are at a considerable elevation above the main truss, and before the machinery could be stopped the great strain caused the north arm to buckle and collapse. The wreckage has since been cleared away, and it is expected that the structure will be rebuilt as soon as new material can be procured. At the time of the accident an electric light plant had just been installed preparatory to working night shifts, and the conveyor was showing a marked improvement, its average per 10 hour shift being about 940 cubic yards against 437 for the latter part of the preceding month. On the 26th a steam shovel was moved on to the section which is to be operated in connection with cars and track. The amount excavated was 10,178 cubic yards, equal to 25 per cent of the monthly rating.

On Section G the steam shovel and car plant, between Stations 354 and 367, did a good month's work, averaging 920 cubic yards per day of 10 hours. The Bates Belt Conveyor averaged 651 cubic yards. The total amount excavated was 41,376 cubic yards, which is 73 per cent of the monthly requirement. The contractors are preparing for additional plant for this section.

*Section F*—The contractors have practically abandoned this section, no work

having been done thereon except a little cleaning up of the surface ditches.

*Section E*—The levee on this section was completed during the month to the required height and dimensions with the exception of about 300 feet near the Calumet Terminal Railway and about 100 feet near the Summit Road cross levee. It is practically all completed at this time (December 12th).

On the Main Channel the contractors have abandoned some of the plant hastily procured and used during October and have provided a better equipment of locomotives and cars. They have built boarding houses, shops and engine house, laid additional pit tracks, put in an electric light plant, etc. Their two steam shovels worked 46 shifts of 10 hours each, averaging about 370 cubic yards each per shift. Their total output for the month was 18,523 cubic yards, or 22 per cent of the monthly requirement. They express their intention to put in another shovel as soon as the pit can be arranged for it and to work night as well as day shifts.

Their present plant consists of:

2 steam shovels.

4 locomotives.

38 dump cars.

4 steam pumps.

1 electric light plant.

*Section D*—The suspension of team work has had a marked effect on the output on this section and the steam shovels failed to maintain their usual progress, being credited with only 15,531 cubic yards in 46 days, an average of but 338 yards per day, and 37 per cent of the monthly rating. The section is, however, far ahead of the contract requirements and a third steam shovel has been added to the plant during the current month, which should insure the maintenance of the required progress.

*Section C*—The total quantities excavated on this section during November amounted to 78,940 cubic yards. Of this amount the two original steam shovels moved 36,717 yards in 73 shifts—equal to 503 yards per shift. The third shovel handled 5,647 yards in 20 days, an average of 282 yards per day. The hydraulic dredge took out 4,111 yards in 21 days, averaging 196 yards per day, and the balance, 32,465 yards, were removed with teams, scrapers, cars and wheelbarrows. The rate of progress was 137 per cent.

*Section B*—Five thousand three hundred cubic yards were excavated by hydraulic dredge No. 2 in 11 shifts of 11 hours each, giving an average of 482 yards per shift. This average is low on account of working over and cleaning up a large area that had been previously dredged. Two steam shovels were installed on the east half of the section and worked 13 shifts, taking out 5,060 cubic yards, an average of 390 each. About 1,000 yards were removed with teams and wheel scrapers, and the remainder, 14,790 yards, were taken out by men with wheelbarrows. The total output was 26,150 cubic yards, equal to 53 per cent of the required monthly rating.

*Section A*—Hydraulic Dredge No. 2 handled 37,500 cubic yards in 25 shifts of 11 hours each, an average of 1,500 yards per shift and equal to 47 per cent. of the average requirement for the month. Twenty-two thousand, four hundred and eighty cubic yards of material were hauled into the River Diversion levee, of which 9,380 yards were taken from the Main Channel, Section B, and 13,100 yards from the Main Channel, Section 1. Although requiring considerable care in depositing material therefrom without injuring it, the trestle is in fair condition, and the small gap remaining should be closed up during the current month.

The work of removing the muck from the Des Plaines River was completed on the 1st inst.

*Section 1*—On the west half of this section rock was encountered at a considerable higher elevation than was anticipated. This required some modification of plans, which, together with the tedious haul and disposition of a part of the material in the trestle levee, have considerably affected progress. The total amount excavated was 50,500 cubic yards, of which 43,700 were taken out with 4 steam shovels in 97 shifts of 10 hours each, an average of about 500 cubic yards per day for each shovel. About 1,800 cubic yards were moved with teams and scrapers. The total output was about 40 per cent. of the monthly rating. During the month the contractors completed a commodious engine house and machine shop, laid additional pit and dump tracks, and materially improved the working condition of the section.

*Section 2*—This section continues to gain, and has now attained a rate of progress



that will, if maintained, recover its deficiency and complete the work in advance of contract time. The three steam shovels excavated 33,556 cubic yards of glacial drift in 71 10-hour shifts, an average of 471 yards per day for each shovel. Eight thousand, seven hundred and twenty-four cubic yards were moved by a cableway in 25 days, an average of 323 yards per day. The balance of the glacial drift, 475 yards, was handled with small car gangs.

Of the solid rock one cableway handled 8,434 cubic yards in 25 days, making an average of 337 yards per day, and 2,166 cubic yards were taken out by small car gangs. The total estimate for the month was 42,755 cubic yards of glacial drift and 10,600 yards of solid rock, which is equal to 161 per cent of the monthly rating.

*Section 3*—Section 3 continues to maintain its regular monthly proportion and to gradually overcome its deficiency, which is now reduced to about \$70,000. Eleven thousand six hundred cubic yards of glacial drift were excavated during the month, of which 6,000 yards were handled with a steam shovel in 18 days, an average of 333 yards per day; 5,136 yards with car gangs and the balance, 464 yards, with a cableway, which was operated in the glacial drift but 3 days when it was moved back to the rock work where it will be employed hereafter. In the solid rock 35,105 cubic yards were moved by 4 cableways in 153 shifts, an average of about 230 cubic yards per shift. The monthly rate of progress was 118 per cent.

*Section 4*—Work was continued on this section with 4 steam shovels and a small gang of shovelers with dump cars. The 4 steam shovels handled 50,530 cubic yards in 103 days, averaging about 490 yards each per day. The shovel gang moved 2,470 cubic yards, making the total output 53,000 yards, which is equal to 132 per cent of the monthly requirement.

*Section 5*—The 3 steam shovels on this section, while in service 78 days, were in actual operation only 42 days during the month. This loss of time was due to several causes, among which is the changing of the method of removing the material from the pit, from locomotives and cars, to the incline system; the overhauling of a part of the plant and its removal from the west to the east end of the section.

The cableway mentioned in my last report was completed and started up on the 27th. Meantime a force, with a steam hoist, was engaged on the rock work. The November estimate gives the following quantities: Glacial drift, 17,000 cubic yards; solid rock, 3,800 cubic yards; retaining wall, 700 cubic yards, which amounts to \$10,338, or 63 per cent of the monthly rating.

*Section 6*—This section shows considerable improvement and is being gotten into good working order considering the physical difficulties encountered. The east cable way was engaged in taking out glacial drift. From the first to the 11th the material was loaded with a steam shovel and from the 12th to the end of the month by manual labor. It was operated 21 out of the 26 working days. The other two steam shovels, one at the east end of the section and the other near the Bracken bank, were employed in connection with steam hoists and averaged about 360 yards per day worked. Of the 26 days the former was in use 21½ days and the latter 14 days, being disabled from the 12 to the 24th. The steam hoist on the left, near the Bracken bank, was operated with manual labor in loading cars, assisted by a derrick. In the rock work another cable way was started on the 14th, making three cableways now at work in rock excavation. They worked 60½ out of 67 actual working days and averaged 237 cubic yards each per day. The average since starting has been 222 cubic yards per day. From two to five channelers have been in use during the month, as the rock surface was cleaned up for them. They performed a total of 62 days work, averaging 81 square feet per day. The output for the month was 19,800 yards of glacial drift, 15,900 yards of solid rock and 600 cubic yards of retaining wall, which is equal to 71 per cent of the required rating.

*Section 7*—There was a marked reduction in the output on this section, owing largely to a change in the order of working and also to a suspension of a part of its plant for nearly one half of the month for necessary repairs.

The cableway worked 28 shifts, averaging 292 yards per shift. Its average since starting is 300 yards per day. The two Hulett Cantilevers were operated 40 out of the 52 days, and averaged 157 yards each



per day worked. Their daily average to date has been 162 yards. The two Hulett Derricks worked a total of 27 days, averaging 189 yards each per day. Their grand average to date is 214 yards. Twelve and one-half days each were lost in putting in new boilers. The total output was 1,100 yards of glacial drift and 21,400 yards of solid rock, which is 63 per cent. of the contract rating.

*Sections 8, 9, 10, 11, 12 and 13*—The amount of work done on these sections in the aggregate exceeds the contract requirement by about \$270,000. The methods employed are two well known to require any detailed description, and hence I only give the output and monthly percentage, which are as follows:

Section.	Glacial Drift, Cu. Yds.	Solid Rock, Cu. Yds.	Value of Work Done.	Per cent. of Monthly Rating.
8	600	53,600	\$40,066.00	188
9	.....	55,500	42,679.50	222
10	700	44,200	35,535.00	158
11	.....	24,800	19,654.00	101
12	.....	35,700	28,292.25	147
13	.....	31,000	23,172.50	125

*Section 14*—The output on this section for the month was 27,700 cubic yards glacial drift and 28,500 cubic yards of solid rock, which amounts to 128 per cent. of the required monthly rating.

Derricks Nos. 1 and 2 have been worked day and night shifts all month excepting when laid up for repairs. Derrick No. 3 was started on the 6th, but did not do much until the 15th. These three

derricks worked 128 9-10 shifts of 10 hours and averaged 195½ yards each per shift. One steam hoist and cars were employed 19 days, averaging 173 7 10 yards per day. Derricks Nos. 5 and 6 which were accidentally wrecked in October while in course of construction, have been rebuilt and are about ready for trial, before being accepted by the contractors.

Derrick No. 4 will probably be finished before the end of the current month. The output of rock shows a decided increase, and still better results may be reasonably expected hereafter if the present appliances prove to be substantial and adapted for this kind of work.

*Section 15*—All but 6000 cubic yards of glacial drift has been removed from the Main Channel and this will not be taken off until next spring. The steam shovel was not put into steady operation until the 8th inst., and as it has been engaged in opening up a pit it has not yet had a fair test. The material is loaded on dump cars and hauled from the pit by a steam hoist. So far the rock has broken very well for steam shovel work, and should it continue to do so this method of loading will doubtless prove satisfactory.

Their air compressor plant is about completed and additional plant has been ordered. The steam shovel handled 2,100 cubic yards of rock in 14½ days, an average of about 145 yards per day. The total output was 5,300 yards of glacial drift and 2,100 yards of solid rock, which is equal to but about 10 per cent of the monthly requirement.

Respectfully submitted,

(Signed) U. W. WESTON,  
Superintendent of Construction."

STATEMENT SHOWING THE AMOUNT OF WORK DONE DURING THE  
MONTH OF NOVEMBER, 1894 (MAIN CHANNEL).

SECTIONS.	Amount Done During November.	Average Monthly Requirement.	Deficiency for November.	Excess Over Monthly Requirement.	Per Cent. of Monthly Requirement.
O.....	\$ 10,500 00	\$ 13,373 30	\$ 2,873 30	.....	79
N.....	1,702 00	10,614 81	8,912 81	.....	16
M.....	10,264 10	6,255 02	.....	\$ 4,009 08	164
L.....	9,022 60	8,648 36	.....	374 24	104
K.....	8,250 00	11,490 55	3,240 55	.....	72
I.....	22,525 00	11,361 94	.....	11,163 06	198
H.....	2,951 62	11,966 83	9,015 21	.....	25
G.....	11,585 28	15,791 38	4,206 10	.....	73
F.....	.....	7,971 64	7,971 64	.....	0
E.....	5,001 21	22,999 23	17,998 02	.....	22
D.....	5,770 51	15,788 43	10,017 92	.....	37
C.....	18,550 90	13,568 10	.....	4,982 80	137
B.....	7,060 77	13,443 95	6,383 18	.....	53
A.....	11,484 38	24,224 63	12,740 25	.....	47
1.....	21,664 50	53,735 43	32,070 93	.....	40
2.....	29,857 50	18,541 43	.....	11,316 07	161
3.....	33,175 80	28,121 22	.....	5,054 58	118
4.....	25,970 00	19,623 70	.....	6,346 30	132
5.....	10,338 00	16,317 19	5,979 19	.....	63
6.....	18,932 50	26,619 64	7,637 14	.....	71
7.....	16,015 00	25,462 74	9,447 74	.....	63
8.....	40,066 00	21,295 08	.....	18,770 92	188
9.....	42,679 50	19,232 36	.....	23,447 14	222
10.....	35,535 00	22,472 29	.....	13,062 71	158
11.....	19,654 00	19,493 98	.....	160 02	101
12.....	28,292 25	19,200 06	.....	9,092 19	147
13.....	23,172 50	18,588 65	.....	4,583 85	125
14.....	26,345 00	20,653 03	.....	5,691 97	128
15.....	2,246 00	23,401 80	21,155 80	.....	10
Totals.....	\$498,661 92	\$540,256 77	\$159,649 78	\$118,054 93	92 3-10

## FORCE REPORT—DAILY AVERAGE—NOVEMBER, 1894.

SECTIONS.	Men.	Teams.	Steam Shovels.	Steam and Air Pumps.	Steam and Air Drills.	Steam and Air Hoists.	Chan- nelers.	Air Com- pressors.	Conveyors.	Locomo- tives.	Cars.	Dredges.	Steam Tow Boats.	Scows.
O.....	38	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.6	3.7	.....
N.....	12	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
M.....	89	7	2.8	2.5	.....	.....	.....	.....	2.9	.....	10	.....	.....	.....
L.....	84	6	1.9	1.3	.....	.....	.....	.....	2.3	.....	.....	.....	.....	.....
K.....	55	8	2.0	.....	.....	.....	.....	.....	2.0	.....	.....	.....	.....	.....
I.....	173	5	5.5	3.6	.....	.....	.....	.....	5.5	.....	.....	.....	.....	.....
H.....	21	4	.....	1.0	.....	.....	.....	.....	1.0	.....	.....	.....	.....	.....
G.....	94	14	2.0	2.0	.....	.....	.....	.....	.....	.....	50	.....	.....	.....
F.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
E.....	130	6	2.0	4.0	.....	.....	.....	.....	.....	3.0	.....	.....	.....	.....
D.....	82	8	2.0	2.0	.....	.....	.....	.....	.....	4.0	33	.....	.....	.....
C.....	205	47	3.0	3.0	.....	.....	.....	.....	.....	4.0	48	1.0	.....	1.0
B.....	209	4	1.4	3.6	.....	.....	.....	.....	.....	2.0	14	1.0	.....	.....
A.....	87	2	.....	.....	.....	.....	.....	.....	.....	2.0	16	2.6	.....	.....
1.....	221	9	3.8	7.2	.....	.....	.....	.....	.....	6.0	54	.....	.....	.....
2.....	316	28	2.9	8.2	4.2	2.6	2.0	.....	2.0	.....	57	.....	.....	.....
3.....	488	18	.....	4.7	13.7	1.7	8.1	2.1	6.4	.....	29	.....	.....	.....
4.....	249	28	3.8	8.8	.....	9	3.2	1.8	.....	.....	61	.....	.....	.....
5.....	170	5	1.6	5.0	2.5	1.8	2.1	.....	2.4	4.0	83	.....	.....	.....
6.....	256	10	1.5	9.2	6.3	2.2	2.4	.....	5.3	.....	28	.....	.....	.....
7.....	220	5	.....	9.9	8.7	.....	2.6	1.2	3.6	.....	2	.....	.....	.....
8.....	332	4	.....	7.2	15.7	.....	7.5	.....	4.2	.....	8	.....	.....	.....
9.....	547	18	.....	9.8	18.6	3.5	5.8	.....	1.7	.....	174	.....	.....	.....
10.....	305	3	.....	5.5	15.6	1.2	6.8	1.0	2.8	.....	16	.....	.....	.....
11.....	126	12	.....	5.5	7.4	.....	4.9	1.0	1.8	.....	.....	.....	.....	.....
12.....	204	11	.....	4.0	11.8	.....	5.6	1.0	3.7	.....	.....	.....	.....	.....
13.....	175	11	.....	6.0	10.0	.....	3.5	1.0	3.1	.....	.....	.....	.....	.....
14.....	356	11	3.7	8.0	12.7	.....	5.6	2.8	5.0	6.0	119	.....	.....	.....
15.....	38	11	.....	1.8	3.3	.....	2.7	.....	.....	.....	1	.....	.....	.....
Totals.....	5,286	313	41.2	124.0	131.4	19.4	61.4	11.9	55.7	31.0	803	8.6	3.7	1.0



TABLE OF AMOUNT OF WORK DONE (INCLUDING RIVER DIVER

SECTIONS.	CONTRACTORS.	MAIN CHANNEL.		RIVER DIVERSION.		RUBBLE MASONRY.
		<i>Glacial Drift.</i>	<i>Solid Rock.</i>	<i>Glacial Drift.</i>	<i>Solid Rock.</i>	
		Cubic Yds.	Cubic Yds.	Cubic Yds.	Cubic Yds.	
		Cu. Yds.	Cu. Yds.	Cu. Yds.	Cu. Yds.	
O	McMahon & Montgomery Co. et al.	508,400				
N	Hayes Bros. et al.	67,300				
M	The Heidenreich Co.	312,900				
L	The Heidenreich Co.	391,500				
K	Christie & Lowe.	360,600				
I	Christie & Lowe.	623,500				
H	Gahan & Byrne.	136,429				
G	Gahan & Byrne.	485,502				
F	Ricker, Lee & Co.	504,293		168,234		
E	Angus & Gindele.	487,686		95,718		
D	E. D. Smith & Co.	1,070,181				
C	Western Dredging & Imp. Co.	726,409		162,537		
B	Heldmaier & Neu.	549,463		208,626		
A	Heldmaier & Neu.	836,922		120,786		
1	Griffiths & McDermott.	349,526		5,876		
2	McArthur Bros.	529,593	14,600	29,515		
3	Gilman & Co.	336,610	157,589			
4	McArthur Bros.	618,200				
5	The Quayle Construction Co.	551,800	8,100			1,300
6	Mason, Hoge & Co.	518,900	19,400	112,700		1,300
7	Mason, Hoge & Co.	168,700	337,700	97,000	41,800	
8	Mason, Hoge, King & Co.	35,800	569,800	56,600	96,900	
9	Halvorson, Richards & Co.	64,700	514,500	37,700	16,000	
10	E. D. Smith & Co.	27,100	811,600	27,400	56,500	
11	Mason, Hoge & Co.	44,032	608,000	5,756	11,483	
12	Mason, Hoge & Co.	27,400	581,200	11,739		
13	Mason, Hoge & Co.	32,822	847,600			
14	Smith & Eastman.	301,700	250,700			
15	Wright, Meysenburg, Sinclair & Carry	29,500	2,100			
Total		10,697,468	4,722,889	1,130,188	222,683	2,600

Main Channel, glacial drift.....	1.00
Main Channel, solid rock.....	1.00
River Diversion, glacial drift.....	1.00
River Diversion, solid rock.....	1.00
Rubble Masonry.....	1.00

Total amount required to be done December 1st, 1894.....  
Total amount done December 1st, 1894.....

Amount short as per contracts.....

Total value of work done under contracts	December 1st, 1894.....	
Reserved.....		$\left\{ \begin{array}{l} 12\frac{1}{2} \text{ per cent.} \\ 10 \text{ per cent.} \end{array} \right.$

Total value of vouchers paid, including those of December 1st, 1894	
Total value of vouchers paid for collateral work, including those of December 1, 1894.....	

Total disbursement, construction account.....

NOTE.—\*Overhaul to Levee—Section 1 not included.

†Overhaul to Levee—Section 1 included.

## SION) AND CONDITION OF WORK ON CONTRACTS DEC. 1ST, 1894

Total value of work done to Dec. 1st, 1894, on each section.	Total value of work required to be done to Dec. 1st, 1894.	Amounts behind as per contracts.	Amounts ahead as per contracts.	Average monthly progress called for in contracts.	Average monthly progress necessary June 1st, 1894, to time of completion.	Progress made during month of November, 1894.
\$106,764 00	\$ 93,613 10		\$13,150 90	\$13,373 30	\$13,673 53	\$10,500 00
15,479 00	74,303 67	\$ 58,824 67		10,614 81	11,076 32	1,702 00
67,899 30	50,040 16		17,859 14	6,255 02	6,550 80	10 264 10
77,125 50	69,186 88		7,938 62	8,648 86	8,791 40	9 022 60
90,150 00	91,924 40	1,774 40		11,490 55	12,259 29	8 250 00
155,875 00	90,895 52		64,979 48	11,361 94	11,332 54	22 525 00
39,564 41	95,734 64	56 170 23		11,965 83	13,007 42	2,951 62
135,940 56	126,331 04		9,609 52	15,791 38	16,068 83	11,585 28
157,350 16	160,342 46	2,992 30		9,110 44	8,229 08	272 41
160,343 49	201,340 74	40,997 25		22,999 23	22,999 23	5,001 21
282,929 31	265,391 79		17,537 31	15,788 43	16,182 92	5,770 51
208,902 30	251,952 07	43,049 76		14,820 71	17,235 86	18,550 90
204,684 03	253,062 33	53 378 35		15,180 14	17,648 80	7,060 77
293,298 08	431,908 46	138,610 38		25,406 38	31,590 06	11 484 38
*132,960 86	356,703 44	223,742 58		53,735 43	53,735 43	21,664 50
278,212 48	412,346 00	134,133 52		18,743 00	24,863 58	29 857 50
287,009 34	357,248 34	70,239 00		28,121 22	33,566 96	33 175 80
292,227 54	451,345 10	159,117 56		19,623 70	27,776 89	25 970 00
171,264 50	367,136 78	195,872 28		16,317 19	24,128 73	10 338 00
187,811 00	270,232 57	82,421 57		26,651 51	26,930 88	18 982 50
348 014 50	345,815 38		2,199 12	25,550 84	26,144 27	16,015 00
522 382 25	563,376 72	40,994 47		23,474 03	31,195 19	40 222 00
434,573 50	476 010 96	41,432 46		19,833 79	27,377 55	42 679 50
708,105 00	569,583 92		133,521 08	23,774 33	23,854 68	35 555 00
506,001 15	474 201 84		31,799 31	19,758 41	20,333 49	19 654 00
472,440 55	460,801 44		11,639 11	19,200 05	20,238 28	28 292 25
642,114 72	446,127 60		195,987 12	18,588 65	14,292 26	23 172 50
272,807 00	495,672 72	222,865 72		20,653 03	30,825 84	26 345 00
6,844 00	43,303 60	39,959 60		23,401 80	23,401 80	2 246 00
\$7,259,078 33	\$8,354,433 72	\$1,606,576 10	\$511,220 71	\$550,244 51	\$815,311 91	\$499,090 33

## Cubic Yards.

10,697,463	
4,722 889	
1,130,188	
222,683	
2,600	
\$8,354 433 72	
7,259 078 33	
\$1,095 355 39	
\$7,259,078 33	
\$886,153 76	
141,100 22	
1,027,253 98	
\$6,231,824 35	
†587,511 74	
\$5,819,336 09	

“CHICAGO, Dec. 8, 1894.

*Mr. Isham Randolph, Chief Engineer:*

DEAR SIR—The work of Division 2 for the month of November was as follows:

The Joliet survey was continued and is now nearly finished. Some work was done to determine the elevation of rock surfaces from Jefferson street to southern limits of survey, taking notes where rock was exposed and by means of test pits. All high water marks along the river in Joliet, both of our own record and those obtained by inquiry were located and the elevation obtained.

A preliminary examination of the sewers and drains in Joliet was made.

The reduction and platting of notes of the Joliet work was continued.

The level party ran 57½ miles, making a total amount to December 1st of 232 miles, finishing the work in Palos, Orland, Worth, Bremen, Homer, Downer's Grove, York and a part of Addison Township.

Some further work was done on plats and profile of Illinois and Michigan Canal and Illinois River.

The work of designing and preparing plans for regulating works, tail race and channel through Joliet was continued. Miscellaneous questions pertaining to execution of work on Main Channel were also considered.

The testing of cement and sand to be used in retaining walls was continued.

The work of preparing record photographs was continued, as was also the maintenance of water gauges.

Expenses of December will approximate to those for November.

Very respectfully,

(Signed) THOS. T. JOHNSTON,

*First Assistant Chief Engineer.”*

“CHICAGO, Dec. 11, 1894.

*Mr. Isham Randolph, Chief Engineer:*

DEAR SIR—I herewith submit the report of Division 3 for the month of November, 1894.

The main part of the force was employed on the District map, plat book sheets, Upper Illinois Valley map and profile, topographical maps at Joliet, between E., J. & E. R. R. and Lake Joliet, and coloring maps for schools.

The work on the original, and tracing

of the District map, has made favorable progress during the month, the taking of topography for the same is being continued by field party, and both map and tracing will be finished at an early date.

The tracing of the Upper Illinois Valley map and profile has been finished and two prints of same colored, showing differences in elevations.

The original plat book sheets between Lockport and Summit are practically completed, and computing acreages for same has been commenced.

The work on the topographical maps at Joliet has been continued and is now nearly finished.

The greater part of the prints for school maps have been colored and completed.

Miscellaneous work was finished as follows:

Computation of areas and tracing of Sec. 22, T. 36 N., R. 10 E., for Law Department.

Reduction of Stadia notes taken by field party, platting notes and filling up progress profiles for November.

The expense for December will be about the same as for the past month.

Yours truly,

(Signed) EDGAR WILLIAMS,

Per J. C. N.

*Second Assistant Chief Engineer.”*

#### SUSPENSION OF WORK ON LEVEES ON SECTIONS 14 AND 15.

The Clerk presented a report from the Chief Engineer, accompanied by three (3) enclosures, with reference to his action suspending work of Smith & Eastman on the levees on Sections 14 and 15; and the report and enclosures were read.

Mr. Boldenweck, seconded by Mr. Eckhart, moved that the report and enclosures be ordered printed and placed on file, and the action of the Chief Engineer, as set forth in the report and enclosures, approved.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Coolay, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report and enclosures ordered printed and placed on file, and the action of the



Chief Engineer, as set forth in the report and enclosures, approved.

The following is

THE REPORT, WITH ENCLOSURES:

“CHICAGO, Dec. 18, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith the following documents: First—Copy of my letter of the 13th inst. to Smith & Eastman, Contractors for Section 14. Second—The reply of said Smith & Eastman, under date of December 17; and, third—Copy of my letter to Smith & Eastman of this date.

My position in relation to the matters in dispute is, I believe, proper under the circumstances and will be adhered to in the absence of any orders from your Honorable Body.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.”*

(Three (3) enclosures).

(Enclosures.)

“CHICAGO, Dec. 13, 1894.

*Messrs. Smith & Eastman, Lockport, Ill.:*

GENTLEMEN—I had the matter of further excavation in gravel mound up with the Committee on Finance and Engineering, and as a result I have to advise you that no further work will be permitted under the existing contracts, the time having expired in which you were to complete the work of levee construction. Please govern yourselves accordingly.

The Committee is not disposed to entertain the idea of paying any more for retaining walls on your section than they do on other sections where there is continuous wall work. The price fixed by them is \$3.25 per cubic yard.

As to the back filling, I see no reason for changing the ruling which I made on that some time since. The contract did not contemplate paying for back filling and that is the only thing which I have to guide me in such matters.

Yours truly,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.”*

“CHICAGO, Dec. 17, 1894.

*Mr. Isham Randolph, Chief Engineer,  
Sanitary District, Chicago:*

DEAR SIR—We have your favor of the 13th inst. in which you advise us that no further work will be permitted under our contract for building levees on Sections 14 and 15 of the Drainage Channel, on the grounds that the time has expired within which we were to complete them.

Our contract provides for the building of 17,000 lineal feet of levee, 8 feet above datum and 30 feet wide on top. The quantity of gravel required to build those levees was estimated by your own engineers to be 450,000 yards, and by our engineer at over 500,000 yards.

You desired, for reasons of your own, to have the 6,000 feet of this embankment, located on the west bank of Section 14, built at 20 cents per yard, or about \$16,000.00 less than the work was reasonably worth, and this we consented to do in consideration of being allowed 36 cents per yard for the other 11,000 lineal feet, containing some 400,000 yards.

We promptly entered upon this work, putting in at great expense a plant which we considered amply sufficient to build the 17,000 feet of embankment within the time called for in the contract. We were seriously delayed because the Sanitary District had not acquired title to the lands on which those levees are built; but the most serious delay was caused by the character of the gravel bank. All the evidence indicated a loose gravel deposit, but as soon as the outer edges were removed, we found a cement conglomerate which required to be blasted with dynamite before our steam shovels could handle it, and even then our specially heavy shovel, which we purchased with a guaranteed capacity of 2,400 yards per 10 hours, has never been able to handle one-half that quantity of this stuff.

We never had any intimation from you previous to the time named for its completion, that any necessity for haste existed in the prosecution of this part of the work, except to raise the levees above danger from water or floods. You have urged forward the completion of the 6,000 feet on Section 14, which we have done at serious loss, since the date specified for its completion and up to the present time, which fact is a distinct waiver of the time clause of this contract. We have incurred all the expense in building tracks and raising them

to the full height, and purchased a plant to complete 17,000 feet of embankment as embraced in our contract, and now when we are in a position to earn back a part of our investment we cannot afford to have our contract interfered with, and for those reasons we propose to proceed with our work to completion, unless prevented by your Honorable Board. We expect you to pay us 36 cents per yard for each yard required to complete the work. If you desire to discontinue it, we will give you credit for the cost to us of completing it.

Respectfully yours,

(Signed) SMITH & EASTMAN."

"CHICAGO, Dec. 18, 1894.

*Messrs. Smith & Eastman, Lockport, Ill.:*

GENTLEMEN—I have yours of the 17th inst., relating to the suspension of work upon the levee on Section No. 14, covered by my order of the 13th inst. On January 16th, 1894, you entered into a contract with this District for the construction of certain levees on Section No. 14, and for the extension of the same beyond said section southward over a stretch of about four thousand feet. The said contract distinctly provides that the embankments described therein shall be completed on or before September 15, 1894, unless the contractors were delayed by the failure of the Sanitary District to provide the right of way upon which they were to be built. There was a failure on the part of the District to secure all of the necessary right of way prior to your commencing work, but the land upon which the westerly embankment is located had been in the possession of the District prior to your assumption of this contract and the possession of the small remainder necessary to complete the easterly embankment extended beyond Section 14, was secured by the District by the 8th of June, 1894, although you were permitted to enter upon it on the 22nd of May; and in accordance with the terms of the contract, an extension of time was granted equal to the delay which you suffered in securing the right of way. The contract further provides for a minimum output of 100,000 cubic yards to be used in the embankments beyond Section 14, which minimum yardage has been greatly exceeded. The west levee on Section 14 was a part of the original contract for said section, and became a part of the obligation assumed by you when you purchased said contract. You preferred to do the work, for

which you were paid the highest price, first, and you were permitted to follow your wishes in that regard until the shortness of the season for such work made it necessary that you should enter upon the construction of the west levee on Section 14, which I then required you to complete. I brought these facts before the Committee on Engineering and Finance, and found that it was the sense of that Committee that the time clause of the contract should be enforced. I therefore wrote you as I did on the 13th inst.

I now, and hereby, notify you that if you persist in further excavation of material from the gravel mound on Section No. 14, or from any other source, and placing the same in the levees on Sections 14 and 15, that you do it at your own cost and expense, and that it will not be estimated for payment by the Engineers of this District.

I have issued instructions to Mr. C. L. Harrison, Assistant Engineer in charge, in accordance with the above notification.

Yours truly,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

#### REPORT ON ACTION TOWARD RESUMPTION OF WORK ON SECTION F.

The Clerk presented a report from the Chief Engineer, with reference to the action of Ricker, Lee & Co. concerning the resumption of work on Section F, under order of the Board adopted at the meeting held December 5, 1894, (page 2340 of the Proceedings); and the report was read.

In connection with the report, Mr. Eckhart presented an order directing the Chief Engineer and Attorney to prepare form of advertisement for the re-letting of said Section F, and the Clerk to publish the said advertisement, under the direction of the Committee on Finance, as set forth in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be ordered printed and placed on file, and the order adopted.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Eckhart, Gilmore; Kelly, Russell and Wenter—six (6). Excused and not voting—Mr. Cooley—one (1). Nays—None.

Upon which result the President declared the motion carried, the report ordered printed and placed on file, the



order adopted and the Chief Engineer, Attorney and Clerk directed as provided therein.

The following is

THE REPORT:

"CHICAGO, December 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I have to report the following facts in relation to Section F, which I visited this morning. The only semblance of work consisted in the operation of a pulsometer pump, about 4-inch suction. On another portion of the section there was a group of three or four men around a fire. I found upon the tracks outside of the channel 4 steam shovels, 30 Thacher pneumatic dump cars and 3 locomotives, besides other small equipment of tools and machinery. The premises seemed to be deserted. These facts prove that there has not been the resumption of work required by your order of the 5th inst.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.*

The following is

THE ORDER:

"WHEREAS, There has been an abandonment of Section F by the contractors for said section; therefore, be it

*Ordered,* That said Section F shall be re-let to the lowest responsible bidder, who shall give satisfactory evidence of ability to equip and prosecute the work to a successful issue under all of the terms and conditions of the contract now existing with Ricker, Lee & Co., under the terms of which the said re-letting shall be consummated without releasing said Ricker, Lee & Co. or their bondsmen from liability for any extra cost or loss to the Sanitary District of Chicago growing out of their abandonment and failure to complete their said contract pursuant to all its terms and conditions; and, further, be it

*Ordered,* That the Chief Engineer and Attorney prepare the proper form of advertisement calling for bids upon Section F, making said bids returnable on Wednesday, January 9th, 1895, at noon. Said advertisement to be duly attested by the President and Clerk, and the Clerk shall cause the same to be published, under the direction of the Committee on Finance, as heretofore."

MONTHLY REPORT FROM LAW DEPARTMENT.

The Clerk presented a report from the Law Department for the month of November, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

THE REPORT:

"CHICAGO, Dec. 12th, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I submit herewith the monthly report for November, 1894. The total amount paid out by this Department during the month is as follows:

*General Expenses.*

Right of way.....	\$ 184 70
Expense account.....	4 50
Printing and stationery	26 27
	<hr/> \$ 215 47

*Land Account.*

Right of way (for which deeds have passed)	\$1,776 57
Abstracts (Will County)	50 00
	<hr/> \$1,826 57
Total.....	<hr/> \$2,042 04

The preparation for the trial of the suits in Will County for the condemnation of the tracts of land known as the Loughran and Allen tracts, has been completed since my last report and the trial entered upon.

There are included in this suit 189.75 acres of land. An ice plant is located on one tract and the claim is also made that the land is, for the most part, quarry land; hence, in order that the jury may be fully informed as to the uses to which it may be put, the evidence takes a somewhat wider scope than usual, and has required more preliminary work in its preparation.

By the direction of your Honorable Body an agreement was reached with John H. Tedens and John Thormahlen for the acquirement of all lands on Sag Island, in which they had an interest and which were included in the Du Page County suit.

Proper orders were entered in the Circuit Court of Du Page County and the land was secured by order of judgment in said court and also by proper deeds conveying same to the District.



Some further attention has been given during the month to the question of railroad crossings.

For the coming month the suit in Will County, the preparation of the annual report and routine work will occupy this department.

Respectfully submitted,

(Signed) GEO. E. DAWSON,  
*Attorney."*

#### MAINTENANCE OF ROADWAY ALONG MAIN CHANNEL.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to the maintenance of a roadway throughout the works of the District, recommending that all expenditures on the same, beginning with January 1, 1895, be charged to the General Account; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed and placed on file, and the recommendation made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendation made therein concurred in.

The following is

#### THE REPORT:

"CHICAGO, Dec. 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—Your Joint Committee on Finance and Engineering have considered the matter of the maintenance of a roadway throughout the works of the District, and report as follows:

The Committee are still negotiating with the contractors with a view of arriving at an equitable arrangement with them for the payment by them of their proportionate share toward the maintenance of the roadway, but, pending a final report in the premises we recommend that all expenditures incurred in repairing said road, beginning with January 1, 1895, be charged to the

General Account, instead of to the Engineering Department, as heretofore.

Very respectfully submitted,

(Signed) B. A. ECKHART,  
*Chairman.*

W. H. RUSSELL,  
THOMAS KELLY,  
WM. BOLDENWECK,  
L. E. COOLEY,

*Joint Committee on Finance and Engineering."*

#### REPORT ON COMPLETION OF BOUNDARY COMMISSION NOTES.

Mr. Eckhart, Chairman, presented a report from the Joint Committee on Finance and Engineering, with reference to and accompanied by the proposition from J. L. Bennett, together with five (5) other enclosures concerning the same matter, for the furnishing and transcription of the stenographic notes, taken before the original Boundary Commission of the Sanitary District of Chicago, presented and referred to that Committee at the meeting held November 4, 1894, (page 2299 of the Proceedings) recommending that said proposition be not accepted; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Eckhart, Gilmore, Kelly, and Russell—five (5). Excused and not voting—Mr. Wenter—one (1). Nays—Mr. Cooley—one (1).

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosures, placed on file, and the recommendations made in the report concurred in.

The following is

#### THE REPORT:

"CHICAGO, Dec. 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the communication from Mr. J. L. Bennett, making proposition for the furnishing and transcription of the stenographic notes, taken before the original Boundary Commission of the Sanitary District of Chi-

cago, presented and referred to the Joint Committee on Finance and Engineering at the meeting held November 14, 1894, (page 2299 of the Proceedings) your Committee reports as follows:

It appears that Messrs. Bennett & Edwards submitted a bill and proposition for this work at the meeting held November 14, 1891, (page 260 of the Proceedings) at which time the matter was referred to the Law Department for report. The Attorney rendered a verbal opinion on the matter at the meeting held November 21, 1891, (page 263 of the Proceedings) to the effect that no liability attached to the District, and the whole matter was then referred to the Committee on Judiciary and the Attorney, but no report was ever presented thereon.

In view of the former action in this matter, your Committee is unable to determine of what benefit the notes would be to the Sanitary District at this time, and therefore return Mr. Bennett's proposition, and recommend that the same be not accepted.

Your Committee also transmits the bill and proposition of Messrs. Bennett & Edwards, presented in November, 1891, with the recommendation that the bill be not allowed, nor the proposition accepted.

Some correspondence in the matter is also transmitted for filing.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.  
W. H. RUSSELL,  
THOMAS KELLY,  
WM. BOLDENWECK,

*Joint Committee on Finance and Engineering."*

(Seven enclosures.)

#### PAYMENT FOR STAIRWAY ON SECTION 10.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, recommending that the action of the Chief Engineer in constructing stairway on Section 10 be approved, and the expenditure therefor, \$59.35, be authorized; and the report was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendations made therein concurred in.

The following is

#### THE REPORT:

"CHICAGO, Dec. 19, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In view of the many visitors to the line of the Main Channel, and the danger to life and limb, the Chief Engineer has taken the responsibility of constructing a strong stairway on Section 10, at a cost of \$59.35.

Your Committee regards this work as judicious, and recommend that the action of the Chief Engineer be approved, and the expenditure for the stairway authorized.

Very respectfully submitted,

(Signed) L. E. COOLEY,  
Chairman.  
B. A. ECKHART,  
W. H. RUSSELL,  
WM. BOLDENWECK,  
THOMAS KELLY,

*Joint Committee on Engineering and Finance."*

#### REPORT ON PAYMENT OF PREMIUM ON DESIGN FOR SWING BRIDGE.

Mr. Cooley, Chairman, presented a report from the Joint Committee on Engineering and Finance, accompanied by reports from the Chief Engineer and Attorney, recommending the payment of premium (\$750) for the design of swing bridge selected from those submitted with the rejected bids for bridges and masonry at Romeo, Lemont and Willow Springs, presented at the meeting held October 31, 1894, (page 2284 of the Proceedings); and the report and enclosures were read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the report be adopted, with enclosures, ordered printed and placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Russell and



Wenter—four (4). Nays—Messrs. Eckhart, Gilmore and Kelly—three (3).

Upon which result the President declared the motion lost.

The following is

THE REPORT, WITH ENCLOSURES :

“CHICAGO, Dec. 19, 1894.

*To the Honorable Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the bids which were submitted for swing bridges, and which were rejected by the Board at the meeting held November 14, 1894, (page 2297 of the Proceedings) on the recommendation of this Committee, it appears that by the terms of the advertisement a premium of seven hundred and fifty (\$750) dollars was to be given for that design which should be selected as most suitable for the work.

The Chief Engineer has selected the plans submitted by C. L. Strobel as being, in his judgment, the most perfect and best adapted to the work required of them, and your Committee therefore recommended that C. L. Strobel be paid a premium of seven hundred and fifty (\$750) dollars, on the voucher of the Chief Engineer, on filing said plans to his satisfaction. A report of the Chief Engineer to the Committee and an opinion from the Attorney are transmitted herewith as part of this report.

In view of the rejection of the bids, it is not deemed expedient to publish a detailed tabulation.

Respectfully submitted,

(Signed) L. E. COOLEY,  
*Chairman.*

WM. BOLDENWECK,

W. H. RUSSELL,

JOHN J. ALTPETER,

*Joint Committee on Engineering and Finance.”*

(Two (2) enclosures).

(Enclosures.)

“CHICAGO, Nov. 14, 1894.

*To the Joint Committee on Engineering and Finance:*

GENTLEMEN—I submit herewith schedules giving the details of each of the bids on superstructure as the same were presented on October 31st for the three swing bridges called for by advertise-

ment ordered by the Board on August 29th, (page 2132 of the Proceedings). As will be seen by the comparison of bids, the bid of the Chicago Bridge Company presented the lowest range of prices, and those prices applied to the accepted design would entitle that said company to receive the award of the contract under the conditions set forth in the specifications. According to the provisions of the contract, I have compared the plans and have selected the plans submitted by C. L. Strobel as being, in my judgment, ‘the most perfect and best adapted to the work’ required of it. This selection entitles the said C. L. Strobel to the premium of \$750 offered for the accepted design.

The cost of the three superstructures, using the Chicago Bridge Company’s prices and applying them to the accepted design, is \$13,119.00 each, or a total for construction of \$39,357.00, to which must be added the premium of \$750. These figures are surprisingly low and very much less than I anticipated. The lowest price per pound of erected structure was 3 15-100 cents, and the highest 4 15-100 cents.

Very respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer.”*

“CHICAGO, Dec. 18, 1894.

*To the Joint Committee on Engineering and Finance:*

GENTLEMEN—I have been requested to state whether, in my opinion, under the terms of the advertisement and accompanying specifications inviting proposals for supplying and erecting certain swing or draw bridges and fixed spans along the line of the Main Drainage Channel, the District can be legally held liable for the payment of the award of \$750.00 offered for the most approved design.

The question is not without difficulty, but after a consideration of the terms of the specifications, and of the circumstances attendant upon the invitation for proposals and the objects sought to be attained by the District, I am of the opinion that the bidder who furnished the design which has been selected by the Chief Engineer as the design which seemed to him the most perfect and the best adapted to the work has a right to the award offered which he would stand a good chance of being able to enforce; and that the sum promised as an award should be paid him.



I am sustained in this view by Mr. Wilson.

(Signed)

GEO. E. DAWSON,

*Attorney."*

REPORT ON SANITARY INVESTIGATION  
OF MAIN CHANNEL.

Mr. Gilmore, Chairman, presented a report from the Joint Committee on Health and Public Order, Labor and Judiciary, with reference to a uniform hospital system, together with the general sanitary condition of the camps, recommending a sanitary investigation by the Board at an early date; and the report was read.

Mr. Gilmore, seconded by Mr. Boldenweck, moved that the report be adopted, ordered printed and placed on file, and the recommendation made therein concurred in.

On roll-call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed and placed on file, and the recommendation made therein concurred in.

The following is

THE REPORT:

"CHICAGO, Dec. 19, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—Your Joint Committee on Health and Public Order, Labor and Judiciary have further considered the matter of the creation of a uniform hospital system for the care of the sick and injured employes on the Main Channel of the District, together with the general sanitary condition of the camps along the line, on which the Committee submitted a report at the meeting held November 21, 1894, (page 2320 of the Proceedings) and, after several conferences with the Sanitary Inspector and the Marshal of the District, we have concluded that a personal inspection of the camps by the members of the Board, with a view of bringing about a better condition of affairs in this respect, is both proper and necessary.

We therefore recommend that the Board of Trustees, at the earliest practicable date, take a trip down the line of the Channel, and that the Trustees personally inspect the camps, water supply,

etc., that they may be better able to take proper action in the matter.

Very respectfully submitted,

(Signed)

A. P. GILMORE,

*Chairman.*

WM. BOLDENWECK,

B. A. ECKHART,

THOMAS KELLY,

*Joint Committee on Health and Public  
Order, Labor and Judiciary."*

CLOSING OF OFFICES ON DECEMBER 24  
AND 25, 1894.

Mr. Gilmore presented an order directing that the offices of the District be closed on December 24 and 25, 1894; and the order was read.

Mr. Gilmore, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll call the vote stood: Yeas—Messrs. Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the order adopted, and the offices of the District ordered closed on December 24 and 25, 1894.

The following is

THE ORDER:

"*Ordered*, That the offices of the Sanitary District of Chicago be and they are hereby ordered closed on Monday, December 24th, 1894, and Tuesday, December 25th, 1894, the latter being a legal holiday.

REQUEST FOR REPAIR OF EAST BANK OF  
I. AND M. CANAL, FROM DAM NO. 1  
TO HYDE'S MILL.

The Clerk presented a communication, addressed to President Wenter, by John Ryan, General Superintendent of the Illinois and Michigan Canal, requesting the repair of the east bank of the Canal at Joliet, beginning at Dam No. 1 and extending to the north side of Hyde's flour mill; and the communication was read.

Mr. Cooley, seconded by Mr. Russell, moved that the communication be ordered printed and referred to the Joint Committee on Finance and Engineering.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

THE COMMUNICATION:

"LOCKPORT, Ill., Dec. 13, 1894.

*Hon. Frank Wenter, President Sanitary District of Chicago, Chicago Ills.:*

DEAR SIR—I desire to call the attention of your Board to the fact that the east or berm bank of the Canal in Joliet, commencing at Dam No. 1, and extending up the Canal to the north side of what is known as Hyde's flour mill, will, I apprehend in case of high water, be unsafe. The new diversion made by the Sanitary District of the Desplaines River will cause such an increase volume of water to flow into the Canal above Dam No. 1 as to endanger this bank. In my judgment it ought to be raised to the same elevation as the bank recently constructed on the north side of said mill. Please give this matter attention at your earliest convenience, as it is of such importance that it ought not to be delayed.

Yours truly,

(Signed)

JOHN RYAN,

*General Superintendent Illinois and Michigan Canal."*

SETTLEMENT OF CLAIM FOR HYDRAULIC  
DREDGE WORK ON SECTIONS  
6 AND 7.

The Clerk presented a communication from Chas. Vivian & Co., giving notice of the settlement of their claim, presented and referred to the Joint Committee on Engineering and Finance at the meeting held November 28, 1894, (page 2327 of the Proceedings), for payment for dredge work done on Sections 6 and

7 of the Main Channel, under agreement made by the District, assigned to and assumed by Mason, Hoge & Company; and the communication was read.

Mr. Cooley, seconded by Mr. Boldenweck, moved that the communication be ordered printed and placed on file, and the Committee discharged from further consideration of the question.

The motion prevailed unanimously, and it was so ordered.

The following is

THE COMMUNICATION:

"LEMONT, Ill., Dec. 12, 1894.

*The Honorable Board of Trustees, Sanitary District, Chicago:*

GENTLEMEN—On November 27th last we asked your attention to our claim against Messrs. Mason, Hoge & Co., contractors on several sections of the Drainage Canal. We are pleased to report to you that our claim has been settled in full, and we sincerely thank you for the attention given us, which resulted in the speedy settlement of our account.

Respectfully,

(Signed)

CHAS. VIVIAN & Co."

ADJOURNMENT.

On motion of Mr. Boldenweck, seconded by Mr. Gilmore, the Board then adjourned.

THOS. F. JUDGE,

*Clerk.*

PROCEEDINGS  
—OF THE—  
BOARD OF TRUSTEES  
—OF THE—  
SANITARY DISTRICT OF CHICAGO.

DECEMBER 26, 1894.

OFFICIAL RECORD.

*(Published by authority of the Board of Trustees  
of the Sanitary District of Chicago.)*

REGULAR MEETING.

The two hundred and fifty-third regular meeting of the Board of Trustees of the Sanitary District of Chicago was held in their rooms, Rialto Building, Wednesday, December 26, 1894, at 2:00 o'clock P. M.

President Wenter called the Board to order.

On roll-call Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7) and subsequently Mr. Gilmore, making a total of eight (8) members, were present.

MINUTES.

The minutes of the regular meeting

held December 19, 1894, were approved as printed, on motion of Mr. Boldenweck, seconded by Mr. Kelly.

VOUCHERS.

The Clerk presented the following vouchers:

ENGINEERING DEPARTMENT.

<i>Construction Account—</i>	
Griffiths & McDermott (Sec. 1, Dec. 15, 1894).	\$10,784 86
McArthur Bros. (Sec. 2, Dec. 15, 1894).....	15,540 00
Gilman & Co. (Sec. 3, Dec. 15, 1894).....	14,271 95
McArthur Bros. (Sec. 4, Dec. 15, 1894).....	12,427 48
The Qualey Construc- tion Co. (Sec. 5, Dec. 16, 1894).....	4,899 13
Mason, Hoge & Co. (Sec. 6, Dec. 16, 1894)	7,682 06
Mason, Hoge & Co. (Sec. 7, Dec. 16, 1894)	5,337 94
Mason, Hoge, King &	



Co. (Sec. 8, Dec. 16, 1894).....	\$14,781 81
Halvorson, Richards & Co. (Sec. 9, Dec. 16, 1894).....	13,793 94
E. D. Smith & Co. (Sec. 10, Dec. 16, 1894)....	13,230 00
Mason, Hoge & Co. (Sec. 11, Dec. 15, '94)	9,569 43
Mason, Hoge & Co. (Sec. 12, Dec. 15, '94)...	13,314 00
Mason, Hoge & Co., (Sec. 13, Dec. 15, '94).	7,260 09
Smith & Eastman (Sec. 14, Dec. 15, 1894)....	12,031 25
Wright, Meysenburg, Sinclair & Carry (Sec. 15, Dec. 15, 1894).....	1,600 37
Heldmaier & Neu (Sec. B, Dec. 15, 1894).....	6,166 13
Western Dredging & Improvement Co. (Sec. C, Dec. 15, 1894)	4,329 23
E. D. Smith & Co. (Sec. D, Dec. 15, 1894).....	4,584 70
Angus & Gindele (Sec. E, Dec. 15, 1894).....	2,227 60
Gahan & Byrne (Sec. G, Dec. 15, 1894).....	2,755 76
Gahan & Byrne (Sec. H, Dec. 15, 1894).....	1,043 92
Christie & Lowe (Sec. I, Dec. 15, 1894).....	6,779 06
Christie & Lowe, (Sec. K, Dec. 15, 1894).....	4,578 44
The Heidenreich Co. (Sec. L, Dec. 15, 1894)	4,740 31
The Heidenreich Co. (Sec. M, Dec. 15, 1894)	3,791 80
Hayes Bros., et al., (Sec. N, Dec. 15, 1894)	543 38
McMahon & Montgomery Co., et al., (Sec. O, Dec. 15, 1894)	312 37
Conley Bros. (Sec. 1, extra work—removal of dyke at Columbia Park, Dec. 15, 1894, final).....	150 00
The Qualey Construction Co. (Sec. 5, extra work—spoil removed from existing banks and rip-rap work, Dec. 15, 1894).....	140 00
Mason, Hoge & Co. (Sec. 6, extra—special work—retaining embankment and repairing levee, Dec. 15, '94)	1,365 00
Heldmaier & Neu (Sec. A, extra work, completing levee, 692-710 and below 710, Dec. 15, 1894).....	1,116 00
Lindon W. Bates (Sec. A, extra work, removal of River Diversion muck, Dec. 15, 1894, final).....	3,974 01
	\$205,122 52

## GENERAL ACCOUNT.

Wm. Friedman (sten-

ographic report).....	\$ 8 00
Chicago Edison Co., (electric lighting)....	82 92
Thos. F. Judge, (pay roll and sundry expense).....	74 00
Department of Health, City of Chicago (care of small-pox patients)	683 76
Columbus Medical Laboratory (analysis of water).....	25 00
	\$ 873 68

## POLICE DEPARTMENT.

Edward Williams (expense).....	94 94
Grand total.....	\$206,091 14

Mr. Kelly, seconded by Mr. Boldenweck, moved that the vouchers, as read and shown above, be approved and ordered paid.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, and the vouchers, as read and shown above, approved and ordered paid.

## WEEKLY REPORT ON EMPLOYEES.

The Clerk presented a report, in accordance with the rules, showing the number of persons in the employ of the District for the week ending December 22, 1894.

The same was read, and, by unanimous consent, was ordered printed and placed on file.

The following is

## THE REPORT:

"CHICAGO, Dec. 26, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—I beg leave to report herewith the number of employees in each department for the week ending December 22, 1894, as the same have been reported to me:

Engineering Department.....	141
Clerical Department.....	4
Treasury Department.....	1
Law Department.....	8
Police Department.....	48

Total employees..... 202

Respectfully submitted,

(Signed) THOS. F. JUDGE,  
Clerk."

## REPORT ON REQUEST FOR LEVEE PROTECTION AT COLUMBIA PARK.

Mr. Kelly, Chairman, presented a report from the Joint Committee on Judiciary and Finance, with reference to and accompanied by the communication from the Columbia Park Company, requesting that levee protection be furnished the Park grounds, presented and referred to that Committee at the meeting held December 12, 1894, (page 2349 of the Proceedings); and the report was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the report be adopted, ordered printed, and, with enclosure, placed on file.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Excused and not voting—Mr. Boldenweck—one (1). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with enclosure, placed on file.

The following is

## THE REPORT:

“CHICAGO, Dec. 26, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the communication from the Columbia Park Company, requesting that levee protection be furnished the Park grounds, as set forth in the communication, presented and referred to the Joint Committee on Judiciary and Finance at the meeting held December 12, 1894, (page 2349 of the Proceedings) your Committee respectfully herewith return said communication for filing, no recommendation being made in the premises.

Respectfully submitted,

(Signed) THOMAS KELLY,  
Chairman.

B. A. ECKHART,  
JOHN J. ALTPETER,  
W. H. RUSSELL,

*Joint Committee on Judiciary and Finance.”*

(One (1) enclosure).

## REPORT ON CLAIM FOR PAINTING COLUMBIA PARK BUILDINGS.

Mr. Eckhart, Chairman, presented a report from the Committee on Finance, with reference to and accompanied by the communication and bill from the

Columbia Park Company, and six other enclosures, concerning claim for painting Park buildings said to have been damaged by blasting in the River Diversion, presented and referred to that Committee at the meeting held November 28, 1894 (page 2328 of the proceedings), recommending that the claim be not allowed, and that the communication be placed on file; and the report was read.

Mr. Eckhart, seconded by Mr. Kelly, moved that the report be adopted, ordered printed, and, with all enclosures, placed on file, and the recommendations made in the report concurred in.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Cooley, Eckhart, Kelly, Russell and Wenter—six (6). Excused and not voting—Mr. Boldenweck—one (1). Nays—None.

Upon which result the President declared the motion carried, the report adopted, ordered printed, and, with all enclosures, placed on file, and the recommendations made in the report concurred in.

The following is

## THE REPORT:

“CHICAGO, December 26, 1894.

*To the Honorable the Board of Trustees of the Sanitary District of Chicago:*

GENTLEMEN—In regard to the communication from Geo. W. Plummer, Attorney for the Columbia Park Company, enclosing bill, being claim for painting Park buildings said to have been damaged by blasting in the River Diversion, presented and referred to the Committee on Finance at the meeting held November 28, 1894, (page 2328 of the Proceedings) your Committee report as follows:

It appears that the claim is for the painting of certain of the Park buildings damaged by blasting, and that a claim for the repair of said buildings was presented to your Honorable Body and referred to the Joint Committee on Judiciary and Finance at the meeting held March 7, 1894, (page 1808 of the Proceedings) and that said Committee reported on June 6, 1894, (page 1981) authorizing the repair of said buildings at a cost not to exceed \$30.00, and that a voucher for said amount was ordered paid at the meeting held June 13, 1894, (page 1988).

We find on investigation that the painters were at work painting all of the buildings of the Park at the time the repairs were made by the District, and that no extra expense in painting was

caused by the repairs to the buildings made by the District, which repairs were accepted by the President of the Columbia Park Company at the time, for all the damage claimed to have been done by District blasting.

In view of the above, your Committee respectfully return the said claim herewith, with the recommendation that the bill be not allowed, and that the communication be ordered placed on file.

Certain correspondence with reference to the matter, together with copy of the voucher referred to herein, is transmitted herewith for filing.

Respectfully submitted,

(Signed) B. A. ECKHART,  
Chairman.

W. H. RUSSELL,

THOMAS KELLY,

*Committee on Finance."*

(Eight (8) enclosures.)

ADDITIONAL TIME ON REPORT ON REORGANIZATION OF ENGINEERING DEPARTMENT.

Mr. Cooley, Chairman, made a verbal report for the Joint Committee on Engineering and Finance and Rules, stating that that Committee was not ready to present a report in the matter of the reorganization of the Engineering Department, referred to the Committee at the meeting held December 5, 1894. (page 2342 of the Proceedings), and asked for further time, which was unanimously granted.

PAYMENT OF MATURING BONDS AND INTEREST ON BONDS.

Mr. Eckhart, Chairman of the Committee on Finance, presented an order authorizing and directing the Clerk to draw a warrant on the Treasurer, payable to the order of the Treasurer, in the sum of two hundred and eighty-seven thousand five hundred (\$287,500) dollars, to be used in the payment of maturing bonds and interest on bonds of the District, as provided in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Boldenweck, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Kelly, Russell and Wenter—seven (7). Nays—None.

Upon which result the President declared the motion carried, the order

adopted, and the Clerk directed as provided therein.

The following is

THE ORDER:

"*Ordered*, That the Clerk of this District be and he is hereby authorized and directed to draw a warrant on the Treasurer, payable to the order of Melville E. Stone, Treasurer, in the sum of two hundred and eighty-seven thousand five hundred (\$287,500) dollars, and deliver same to said Treasurer—seventy-five thousand (\$75,000) dollars of said sum to be used by him in the payment of the semi-annual interest on the second issue of bonds of the District, due January 1, 1895; sixty-two thousand five hundred (\$62,500) dollars of said sum to be used by him in the payment of the semi-annual (five (5) months) interest on the third issue of bonds of the District, due January 1, 1895; and one hundred and fifty thousand (\$150,000) dollars of said sum to be used by him in the payment of the principal of such of said second issue of bonds of the District as fall due on said January 1, 1895."

ORDER FOR ADVERTISING FOURTH ISSUE OF BONDS—\$4,000,000.

Mr. Eckhart, Chairman of the Committee on Finance, presented an order, directing the Clerk to advertise, under the direction of the Committee on Finance, for proposals for purchasing the fourth issue—\$4,000,000—of District bonds, under alternative gold and currency propositions, as set forth in the order; and the order was read.

Mr. Eckhart, seconded by Mr. Kelly, moved the adoption of the order.

On roll-call the vote stood: Yeas—Messrs. Altpeter, Boldenweck, Cooley, Eckhart, Gilmore, Kelly, Russell and Wenter—eight (8). Nays—None.

Upon which result the President declared the motion carried, the order adopted, and the Clerk directed as provided therein.

The following is

THE ORDER:

"*Ordered*, That the Clerk of this District be and he is hereby directed to advertise, under the direction of the Committee on Finance, for proposals for purchasing four million (\$4,000,000) dollars of the bonds of the Sanitary District of Chicago (to be the fourth issue of the bonds of said District), said proposals to be invited upon each of the four alterna-



tive propositions here following, to-wit: that said bonds shall be issued either

As four and one-half ( $4\frac{1}{2}$ ) per cent bonds, principal and interest payable in gold coin of the United States of the present standard of weight and fineness.

As four and one-half ( $4\frac{1}{2}$ ) per cent bonds, principal and interest payable in lawful currency of the United States.

As five (5) per cent bonds, principal and interest payable in gold coin of the United States of the present standard of weight and fineness; or

As five (5) per cent bonds, principal and interest payable in lawful currency of the United States, according to what bids, after same shall have been received, shall be decided by the Board of Trustees of this District to be most favorable to said District."

#### COMMUNICATION FROM WEST CHICAGO PARK COMMISSIONERS.

The Clerk presented a communication from Harry Wilkinson, Secretary of the West Chicago Park Commissioners, with reference to a conference concerning District work at the Southwest boulevard; and the communication was read.

Mr. Kelly, seconded by Mr. Eckhart, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

#### THE COMMUNICATION:

"CHICAGO, Dec. 21, 1894.

*President Frank Wenter, Sanitary District, Chicago:*

DEAR SIR—Members of this Board have been informed that excavation upon the Drainage Canal has reached the line of the Southwest Boulevard, and I am directed to request that an immediate conference be had between your Body and the West Park Commissioners upon the subject. The Park Commissioners are in earnest in this matter and will give you ten days to make the necessary reply.

Yours very truly,

(Signed) HARRY WILKINSON,  
*Secretary."*

#### COMMUNICATION ON SUSPENSION OF WORK ON LEVEES ON SECTIONS 14 AND 15.

The Clerk presented a communication

from Smith & Eastman, contractors for Section 14, with reference to the order for the suspension of their work on levees on Sections 14 and 15; and the communication was read.

Mr. Boldenweck, seconded by Mr. Alt-peter, moved that the communication be ordered printed and referred to the Joint Committee on Engineering and Finance.

The motion prevailed unanimously, and the communication was ordered printed and so referred.

The following is

#### THE COMMUNICATION:

"CHICAGO, Dec. 21st, 1894.

*The Honorable Board of Trustees, Sanitary District, Chicago:*

GENTLEMEN—On January 6th last we took an assignment of the contract of the McCormick Construction Company for certain works on Section 14 of the drainage channel. At the same time we entered into a stipulation with your Honorable Board, which was made a part of this contract, to build 17,000 lineal feet of levee embankment on Sections 14 and 15, the same to be raised eight feet above datum, to be thirty feet wide on top, and have a slope on either side of one and one-half to one. These embankments were estimated to contain 450,000 to 500,000 cubic yards, and were to be completed on or before September 15th, 1894, unless delayed by the Sanitary District.

In order to carry out this contract, we purchased and installed the following plant:

Building $5\frac{1}{2}$ miles of standard gauge track, fully equipped with switches, etc., at \$5,000 per mile.....	\$27,500 00
Three 30-ton locomotive engines and tenders, at \$3,000.....	9,000 00
Seventy-two standard gauge, specially built dump cars, at \$150.....	10,800 00
One Marion steam shovel.....	5,500 00
One Vulcan special shovel.....	6,000 00
One flat car.....	200 00
Piping, tanks, etc., etc., approximate...	1,000 00
Total.....	\$60,000 00

Owing to unlooked-for obstacles encountered in the progress of this work, causing breakdowns in our heaviest machinery, and consequent great, and to us, costly delays, the work did not progress nearly as fast as we had hoped for.

We had no intimation from your Honorable Board at any time during the progress of this work, that it was necessary

or desirable that greater haste should be made, and we never had any intimation that the time clause would be enforced until a few days ago, when we had an order from your Chief Engineer to cease operations, on the ground that the time named in the contract had expired.

On September 16th, when the time named in the contract for its completion had expired, your Engineer's estimate showed that we had placed in the embankments the following quantities of gravel:

25,534 cubic yards, at 20c.....	\$ 5,106 80
173,900 cubic yards, at 36c.....	62,604 00

Total...199,434	" "	\$67,710 80
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The estimate of December 16th, at the time we received the order to suspend, from your Engineer, shows the following:

88,534 cubic yards, at 20c.....	\$17,706 80
184,100 cubic yards, at 36c.....	66,276 00

Total...272,634	" "	\$83,982 80
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Thus you will see that a large portion of this work has been done under orders from your Engineer *since* the date specified in the contract; that is to say, the Engineer's last estimate shows we have placed in the embankments since September 15th, the date at which he now claims the contract time expired:

63,000 cubic yards, at 20c.....	\$12,600 00
10,200 cubic yards, at 36c.....	3,672 00

Total...73,200	" "	\$16,272 00
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This fact alone, we are advised, constitutes a complete waiver of the time clause in the contract.

The suspension of this work at this time, even for a day, pending its completion, imposes upon us a very great hardship, in the disorganization of our forces, and quite a heavy money loss in addition. We think the action taken by your Honorable Board in suspending this work, wholly unwarranted, and its sudden suspension, without any previous notice, quite arbitrary.

We ask you to order this work to proceed until the 17,000 lineal feet embraced in the contract are completed. We respectfully refer you to the correspondence between your Chief Engineer and ourselves on this subject, and especially direct your attention to our letter dated December 17th. Hoping for a speedy reply, we are,

Respectfully yours,

(Signed)

SMITH & EASTMAN.

# PETROLEUM AND ASPHALT BOULDER ON SECTION D.

By unanimous consent, the Clerk presented a report from the Chief Engineer, enclosing a letter from Assistant Engineer Shnable, at Summit, and accompanied by fragments of a boulder found on Section D, containing petroleum, asphalt and ice, as described in the letter; and the report and enclosure were read.

Mr. Boldenweck, seconded by Mr. Russell, moved that the report and enclosure be ordered printed and placed on file.

The motion prevailed unanimously, and it was so ordered.

The following is

THE REPORT, WITH ENCLOSURE:

"CHICAGO, Dec. 26, 1894.

*To the Honorable the Board of Trustees  
of the Sanitary District of Chicago:*

GENTLEMEN—I transmit herewith a letter received from Mr. E. R. Shnable, Assistant Engineer, under date of the 20th inst., accompanied by a basket of fragments from a boulder found on Section D, as described in his letter. I feel that this is a matter of sufficient interest to find its place in the records of your Honorable Body.

Respectfully submitted,

(Signed) ISHAM RANDOLPH,  
*Chief Engineer."*

(One (1) enclosure.)

(Enclosure.)

"SUMMIT, Ill., Dec. 20, 1894.

*Isham Randolph, Esq., Chief Engineer  
Chicago, Ill.:*

MY DEAR SIR—I send you to-day, for distribution to heads of departments, and Trustees, specimen taken from the center of a boulder, about three feet in diameter, found at about Station 512, and about 31 feet below the surface. Mr. Jos. Little, Superintendent for E. D. Smith & Co., and myself were present when this boulder was broken up in small pieces by a dynamite cartridge. While we were examining the curious pockets (large and small) of asphalt or petroleum, immediately after the explosion, Mr. Little picked out what seemed to be a crystalized pebble about the size of a small pecan nut. It had a dull, irregular surface. After holding a few seconds it began to melt, and we then discovered the pebble to be a piece of *ice*. This, I suppose, proves the glacial theory. We made this discovery at

about 4 P. M. to-day. The thermometer registered 35 degrees above zero at 8 o'clock this morning. I have the specimen showing the pocket which held this piece of ice.

Yours very truly,

(Signed)

E. R. SHNABLE,  
*Assistant Engineer."*

ADJOURNMENT.

On motion of Mr. Kelly, seconded by Mr. Boldenweck, the Board then adjourned.

THOS. F. JUDGE,  
*Clerk.*



December 26,]

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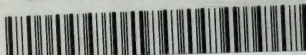








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